S. HRG. 101-34

NHTSA AUTHORIZATION ACT OF 1989

HEARING

BEFORE THE

SUBCOMMITTEE ON THE CONSUMER

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

ON

S. 673

TO AMEND THE NATIONAL TRAFFIC AND MOTOR VEHICLE SAFETY ACT OF 1966 AND THE MOTOR VEHICLE INFORMATION AND COST SAVINGS ACT TO AUTHORIZE APPROPRIATIONS FOR FISCAL YEARS 1990 AND 1991, AND FOR OTHER PURPOSES

APRIL 5, 1989

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NHTSA AUTHORIZATION ACT OF 1989

WEDNESDAY, APRIL 5, 1989

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
SUBCOMMITTEE ON THE CONSUMER,
Washington, D.C.

The Subcommittee met at 9:48 a.m. in room SR-253, Russell Senate Office Building, Hon. Richard H. Bryan (chairman of the subcommittee) presiding.

Staff members assigned to this hearing: Linda Lance and Kevin Curtin, staff counsels; and Alan Maness and William Heyer, minority staff counsels.

OPENING STATEMENT BY SENATOR BRYAN

Senator **BRYAN**. I would like to take this opportunity to welcome everyone to this hearing of the Consumer Subcommittee on the reauthorization of the National Highway Traffic Safety Administration, or NHTSA.

This morning we will hear testimony about an agency with the responsibility that can be simply stated—to save lives. Obviously, nothing could be of greater importance or more deserving of our attention or efforts.

NHTSA's primary responsibility is to improve the safety of our vehicles and our highways, and indeed in its 20 years of activity it has done so. Since the agency was created in 1966, the number of motor vehicle fatalities per 100,000 licensed drivers has been cut almost in half.

However, over 47,000 people still are killed on the Nation's highways each year, and motor vehicle-related injuries are the leading cause of death for children over the age of one year.

There can be no doubt that NHTSA and those of us who consider legislation in this area still have our work cut out for us. Today we will continue that work by obtaining information on NHTSA generally and on the pending authorization legislation which I have introduced, S. 673.

I would like to note at the outset that this bill already is co-sponsored by the Chairman and the ranking Republican Member of the Commerce Committee, Senators Hollings and Danforth, and by the ranking Republican Member of the Consumer Subcommittee, Senator Slade Gorton, as well as Subcommittee Members, Senators Gore and McCain, and Senator Kerry.

I am gratified to have such distinguished colleagues to join me in support of this legislation.

S. 673 would reauthorize NHTSA and require the agency to take certain safety-related actions. I see this legislation as a necessary and important part of the lifesaving work to be done in this area.

Many of the issues addressed in the pending legislation have been considered by the Commerce Committee and the full Senate before and have received an overwhelmingly favorable response. These issues include requirements that NHTSA complete rulemakings to upgrade the side impact standard and to consider additional safety requirements to be applied to multipurpose vehicles.

Unfortunately, despite early Senate action, the House of Representatives did not consider these measures in the last Congress. We hope to make more progress with S. 673.

S. 673 also contains some new ideas which I believe will have a positive impact on safety, including a grant program to increase seat belt usage and the requirement that the Federal fleet be equipped with air bags in the future.

I am aware that for at least two of the new provisions there may be differences of opinion as to whether these benefits outweigh the burdens. I am referring specifically to the return to the 5 mile per hour bumper standard and the provision for judicial review of NHTSA denials of defect petitions.

I believe that both of these provisions will have a salutary effect, but I am interested in hearing about their costs so that we may fully evaluate the wisdom of proceeding in this area.

Our witnesses this morning represent an interesting and wide range of perspectives on highway safety. In recent months there have been encouraging signs that these divergent groups have an increasing recognition of their common interest in safety.

We will hear from three representatives of public interest groups who have great experience in the area of highway safety and injury reduction. We also will hear from representatives of the three major domestic automobile manufacturers, who have evidenced in the past year an increasing awareness that safety, in addition to its intrinsic value, is good for business as well.

Additionally, we will have testimony from representatives of the insurance community, both the industry-sponsored safety research organization and the property casualty industry itself. This industry always has had an interest in safety and recently has taken the additional step of forming a coalition with consumer groups to work toward improved health and safety in various areas.

And of course, our first witness represents the agency itself. Although we are awaiting the nomination of an Administrator to head the agency, we will receive testimony from an individual with responsibility for the agency's rulemakings and thus knowledgeable about the full range of agency activities.

I think that everyone here today shares a desire to improve safety and to prevent the tragedy of highway accidents. We may differ on the best method for achieving this goal, but we all understand its importance and that it is a vital step.

I would like to thank all the witnesses for the time and effort involved in providing important assistance to this Subcommittee through their testimony, and I look forward to working with them through this session and in the days ahead in pursuit of our common goal.

Senator Danforth, would you care to make a statement?

OPENING STATEMENT BY SENATOR DANFORTH

Senator **Danforth**. Mr. Chairman, thank you very much. I want to compliment you for scheduling this hearing at an early date and for introducing the legislation.

My hope would be that we could proceed to a markup soon on this bill and bring it to the floor of the Senate. This Committee has had over the past decade or so really a commendable record on safety matters, both in legislation that we have enacted and in the stimulus we have provided to the executive branch in pursuing safety issues.

And some of the issues that are in this bill are ones that have been around for some time—side impact protection, the pickup truck and minivan issue, again the question of child booster seats, the 5 mile an hour bumper, air bags, and so on.

These are really old issues, and I think that you are just right to put this bill together and to bring it to the attention of the Committee. So my hope is that we could gun it now and get on with it and enact this legislation.

Senator **Bryan**. Thank you very much, Senator Danforth. I think everybody here knows that you have been a long time and leading advocate of this measure, and we appreciate your support again.

Senator Gorton do you have a statement?

OPENING STATEMENT BY SENATOR GORTON

Senator **Gorton**. Thank you Mr. Chairman. I am pleased to be a co-sponsor of S. 673, the "National Highway Traffic Safety Authorization Act of 1989," and to participate in this hearing.

The National Highway Traffic Safety Administration (NHTSA) is an agency with three important missions—improving highway safety, providing information to those purchasing vehicles and establishing fuel economy standards for motor vehicles. S. 673 would require NHTSA action in all three of these areas.

Improving highway safety is NHTSA's most important mission and rightly so. Last year, 47,000 Americans died in highway crashes. That is, on average, almost 130 people killed every day.

This is a record on which we can improve. S. 673 would establish a schedule for improving safety. It would require NHTSA to finish the improved side impact protection standard that has been pending for 10 years. It would improve the safety of small trucks and minivans by making sure that they have basic safety protections such as minimum roof crush resistance, head restraints, high center mounted brake lights and passive restraints. S. 673 would also ensure that vehicles have sufficient stability so that they are not prone to roll over. Finally, it would require shoulder straps for rear seat safety belts just as they have been required for front seat safety belts since 1968.

NHTSA also has a mandate to assist automotive consumers by establishing minimum standards for bumpers. In 1982, NHTSA lowered its bumper standard from five miles per hour (mph) to 2.5 mph. Our experience since that time indicates the bumper standard should never have been lowered. Each year the Insurance Institute for Highway Safety conducts crash tests with bumpers. More than 80% of the 1989 models IIHS tested had damages of over $1,000 in the five mph test. Our bill would require replacement of these tissue paper bumpers with the five mph bumpers required until 1982.

NHTSA also administers the Corporate Average Fuel Economy (CAFE) standards. These standards are important for energy conservation. CAFE also has positive environmental consequences because it encourages the development of vehicles that burn fuel efficiently. Our bill recognizes the need for better planning in the CAFE area. It requires that any auto maker's request that NHTSA lower the CAFE standard be filed 24 months in advance of the model year for which the decrease is sought.

Mr. Chairman, I look forward to today's hearing and I will push for early consideration of this legislation by the Committee and the Senate.

[The bill follows:]

101st CONGRESS
1st Session

S. 673

To amend the National Traffic and Motor Vehicle Safety Act of 1966 and the Motor Vehicle Information and Cost Savings Act to authorize appropriations for fiscal years 1990 and 1991, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MARCH 17 (legislative day, JANUARY 3), 1989

Mr. BRYAN (for himself, Mr. HOLLINGS, Mr. DANFORTH, Mr. GORTON, Mr. GORE, Mr. KERRY, and Mr. McCAIN) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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A BILL

To amend the National Traffic and Motor Vehicle Safety Act of 1966 and the Motor Vehicle Information and Cost Savings Act to authorize appropriations for fiscal years 1990 and 1991, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "National Highway Traffic Safety Administration Authorization Act of 1989".

DEFINITIONS

SEC. 2. As used in this Act, the term—

(1) "multipurpose passenger vehicle" and "passenger automobile" shall have the meaning given such terms by the Secretary; and

(2) "Secretary" means the Secretary of Transportation.

TITLE I—AUTHORIZATION OF APPROPRIATIONS

GENERAL AUTHORIZATIONS

SEC. 101. (a) Section 121 of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. 1409) is amended—

(1) by striking "and"; and

(2) by striking the period and inserting in lieu thereof ", $65,424,000 for fiscal year 1990 and $68,433,000 for fiscal year 1991.".

(b) Section 111 of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 1921) is amended—

(1) by striking "and"; and

(2) by striking the period and inserting in lieu thereof ", $336,000 for fiscal year 1990, and $351,000 for fiscal year 1991.".

(c) Section 209 of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 1949) is amended—

(1) by striking "and"; and

(2) by striking the period and inserting in lieu thereof ", $2,384,000 for fiscal year 1990, and $2,493,000 for fiscal year 1991.".

(d) Section 417 of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 1990g) is amended—

(1) by striking "and"; and

(2) by striking the period and inserting in lieu thereof ", $640,000 for fiscal year 1990, and $669,000 for fiscal year 1991.".

(e) Section 211(b) of the National Driver Register Act of 1982 (23 U.S.C. 401 note) is amended)—

(1) by striking "and" the second time it appears; and

(2) by inserting immediately before the period at the end the following: "not to exceed $5,315,000 for fiscal year 1990, and not to exceed $5,559,000 for fiscal year 1991".

COMMUNITY EDUCATION PROGRAM

SEC. 102. In order to carry out a national program of community education regarding (1) drunk driving prevention and (2) the use and effectiveness of airbag technology, the Secretary may derive an additional amount not to exceed $10,000,000 from unobligated balances of funds made available for highway safety programs under section 408 of title 23, United States Code. Of the funds allocated to such efforts, not less than one-half shall be used for educational efforts related to airbags. Such amounts shall remain available until expended.

TITLE II—SIDE IMPACT PROTECTION AND CRASHWORTHINESS DATA SIDE IMPACT PROTECTION

SEC. 201. (a) The Secretary shall, not later than twelve months after the date of enactment of this Act, issue a final rule amending Federal Motor Vehicle Safety Standard 214, published as section 571.214 of title 49, Code of Federal Regulations. The rule shall establish performance criteria for improved protection for occupants of passenger automobiles in side impact accidents.

(b) Not later than sixty days after the date of enactment of this Act, the Secretary shall issue a notice of proposed rulemaking to extend the applicability of such Standard 214 to multipurpose passenger vehicles. The Secretary shall, not later than two years after such date of enactment, issue a final rule on such extension, taking into account the performance criteria established by the final rule issued in accordance with subsection (a).

AUTOMOBILE CRASHWORTHINESS DATA

SEC. 202. (a)(1) The Secretary shall, within thirty days after the date of enactment of this Act, enter into appropriate arrangements with the National Academy of Sciences to conduct a comprehensive study and investigation regarding means of establishing a method for calculating a uniform numerical rating which will enable consumers to compare meaningfully the crashworthiness of different passenger automobile and multipurpose passenger vehicle makes and models.

(2) Such study shall include examination of current and proposed crashworthiness tests and testing procedures and shall be directed to determining whether additional objective, accurate, and relevant information regarding the comparative crashworthiness of different passenger automobile and multipurpose passenger vehicle makes and models reasonably can be provided to consumers by means of a crashworthiness rating rule. Such study shall include examination of at least the following proposed elements of a crashworthiness rating rule:

(A) information on the degree to which different passenger automobile and multipurpose passenger vehicle makes and models will protect occupants across the range of motor vehicle crash types when in use on public roads;

(B) a repeatable and objective test which is capable of identifying meaningful differences in the degree of crash protection provided occupants by the vehicles tested, with respect to such aspects of crashworthiness as occupant crash protection with and without use of manual seatbelts fuel system integrity, and other relevant aspects;

(C) ratings which are accurate, simple in form, readily understandable, and of benefit to consumers in making informed decisions in the purchase of automobiles;

(D) dissemination of comparative crashworthiness ratings to consumers either at the time of introduction of a new passenger automobile or multipurpose passenger vehicle make or model or very soon after such time of introduction; and

(E) the development and dissemination of crashworthiness data at a cost which is reasonably balanced with the benefits of such data to consumers in making informed purchase decisions.

(3) Any such arrangement shall require the National Academy of Sciences to report to the Secretary and the Congress not later than nineteen months after the date of enactment of this Act on the results of such study and investigation, together with its recommendations. The Secretary shall, to the extent permitted by law, furnish to the Academy upon its request any information which the Academy considers necessary to conduct the investigation and study required by this subsection.

(4) Within sixty days after transmittal of the report of the National Academy of Sciences to the Secretary and the Congress under paragraph (3) of this subsection, the Secretary shall initiate a period (not longer than ninety days) for public comment on implementation of the recommendations of the National Academy of Sciences with respect to a rule promulgated under title II of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 1901 et seq.) establishing an objectively based system for determining and publishing accurate comparative crashworthiness ratings for different makes and models of passenger automobiles and multipurpose passenger vehicles.

(5) Not later than one hundred and eighty days after the close of the public comment period provided for in paragraph (4) of this subsection, the Secretary shall determine, on the basis of the report of the National Academy of Sciences and the public comments on such report, whether an objectively based system can be established by means of which accurate and relevant information can be derived that reasonably predicts the degree to which different makes and models of passenger automobiles and multipurpose passenger vehicles provide protection to occupants against the risk of personal injury or death as a result of motor vehicle accidents. The Secretary shall promptly publish the basis of such determination, and shall transmit such determination to the Congress.

(b)(1) If the Secretary determines that the system described in subsection (a)(5) of this section can be established, the Secretary shall, subject to the exception provided in paragraph (2) of this subsection, not later than three years after the date of enactment of this Act, promulgate a final rule under section 201 of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 1941) establishing an objectively based system for determining and publishing accurate comparative crashworthiness ratings for different makes and models of passenger automobiles and multipurpose passenger vehicles. The rule promulgated under such section 201 shall be practicable and shall provide to the public relevant objective information in a simple and readily understandable form in order to facilitate comparison among the various makes and models of passenger automobiles and multipurpose passenger vehicles so as to contribute meaningfully to informed purchase decisions.

(2) The Secretary shall not promulgate such rule unless (A) a period of sixty calendar days has passed after the Secretary has transmitted to the Committee on Commerce, Science, and Transportation of the Senate and to the Committee on Energy and Commerce of the House of Representatives a summary of the comments received during the period for public comment specified in subsection (a)(4) of this section, or (B) each such committee before the expiration of such

sixty-day period has transmitted to the Secretary written notice to the effect that such committee has no objection to the promulgation of such rule.

(c) If the Secretary promulgates a rule under subsection (b) of this section, not later than six months after such promulgation, the Secretary shall by rule establish procedures requiring passenger automobile and multipurpose passenger vehicle dealers to make available to prospective passenger automobile and multipurpose passenger vehicle purchasers information developed by the Secretary and provided to the dealer which contains data comparing the crashworthiness of passenger automobiles and multipurpose passenger vehicles.

TITLE III—MISCELLANEOUS PROVISIONS

STANDARDS COMPLIANCE

SEC. 301. Section 103 of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. 1392) is amended by adding at the end the following new subsection:

"(j)(1) The Secretary shall establish a schedule for use in ensuring compliance with each Federal motor vehicle safety standard established under this Act which the Secretary determines is capable of being tested. Such schedule shall ensure that each such standard is the subject of testing and evaluation on a regular, rotating basis.

"(2) The Secretary shall, not later than six months after the date of enactment of this subsection, conduct a review of the method for the collection of data regarding accidents related to Federal motor vehicle safety standards established under this Act. The Secretary shall consider the desirability of collecting data in addition to that information collected as of the date of enactment of this subsection, and shall estimate the costs involved in the collection of such additional data, as well as the benefits to safety likely to be derived from such collection. If the Secretary determines that such benefits outweigh the costs of such collection, the Secretary shall collect such additional data and utilize it in determining which motor vehicles should be the subject of testing for compliance with Federal motor vehicle safety standards established under this Act.".

INVESTIGATION AND PENALTY PROCEDURES

SEC. 302.(a) Section 112(a)(1) of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. 1401(a)(1)) is amended by adding at the end the following: "The Secretary shall establish written guidelines and procedures for conducting any inspection or investigation regarding noncompliance with this title or any rules, regulations, or orders issued under this title. Such guidelines and procedures shall indicate timetables for processing of such inspections and investigations to ensure that such processing occurs in an expeditious and thorough manner. In addition, the Secretary shall develop criteria and procedures for use in determining when the results of such an investigation should be considered by the

Secretary to be the subject of a civil penalty under section 109 of this title. Nothing in this paragraph shall be construed to limit the ability of the Secretary to exceed any time limitation specified in such timetables where the Secretary determines that additional time is necessary for the processing of any such inspection or investigation.".

(b) Section 109(a) of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. 1398(a)) is amended by adding at the end thereof the following: "The Secretary shall establish procedures for determining the manner in which, and the time within which, a determination should be made regarding whether a civil penalty should be imposed under this section. Nothing in this subsection shall be construed to limit the ability of the Secretary to exceed any time limitation specified for making any such determination where the Secretary determines that additional time is necessary for making a determination regarding whether a civil penalty should be imposed under this section.".

TRAFFIC SAFETY FOR HANDICAPPED INDIVIDUALS

SEC. 303. (a) The Congress finds that—

(1) a number of States fail to recognize the symbols of other States for the identification of motor vehicles transporting individuals with handicaps that limit or impair the ability to walk; and

(2) the failure to recognize such symbols increases the likelihood that such individuals will be involved in

traffic accident incidents resulting in injury or death, posing a threat to the safety of such individuals as well as the safety of the operators of motor vehicles and others.

(b)(1) Section 402(b) of title 23, United States Code, is amended by adding at the end the following:

"(3)(A) After the date that is eighteen months following the date of enactment of the National Highway Traffic Safety Administration Authorization Act of 1989, the Secretary shall not approve any State highway safety program under this section unless the program provides for the implementation of a uniform system for handicapped parking designed to enhance the safety of handicapped and nonhandicapped individuals.

"(B) For purposes of this paragraph, a uniform system for handicapped parking designed to enhance the safety of handicapped and nonhandicapped individuals is a system which—

"(i) adopts the International Symbol of Access (as adopted by Rehabilitation International in 1969 at its 11th World Congress on Rehabilitation of the Disabled) as the only recognized symbol for the identification of vehicles used for transporting individuals with handicaps which limit or impair the ability to walk;

"(ii) provides for the issuance of license plates displaying the International Symbol of Access for vehicles which will be used to transport individuals with handicaps which limit or impair the ability to walk, under criteria determined by the State;

"(iii) provides for the issuance of removal windshield placards (displaying the International Symbol of Access) to individuals with handicaps which limit or impair the ability to walk, under criteria determined by the State;

"(iv) provides that fees charged for the licensing or registration of a vehicle used to transport such individuals with handicaps do not exceed fees charged for the licensing or registration of other similar vehicles operated in the State; and

"(v) for purposes of easy access parking, recognizes licenses and placards displaying the International Symbol of Access which have been issued by other States and countries.".

(2) Section 402(c) of title 23, United States Code, is amended by inserting immediately after ", as appropriate" the first place it appears the following: "; except that in the case of a failure to obtain approval of or implement a highway safety program because of noncompliance with subsection (b)(3), such funds shall be reduced by amounts equal to 2

per centum of the amounts that would otherwise be apportioned to the State under this section, until such time as the Secretary approves such program or determines that the State is implementing an approved program, as appropriate".

(c) Beginning not later than twenty-four months after the date of enactment of this Act, the Secretary shall annually evaluate compliance by the States with the amendments made by this section. The Secretary shall submit to Congress an annual report regarding such evaluation.

MULTIPURPOSE PASSENGER VEHICLE SAFETY

SEC. 304. (a) The Congress finds that—

(1) multipurpose passenger vehicles have become increasingly popular during this decade and are being used increasingly for the transportation of passengers, not property; and

(2) the safety of passengers in multipurpose passenger vehicles has been compromised by the failure to apply to them the Federal motor vehicle safety standards applicable to passenger automobiles.

(b) In addition to the rulemaking requirements applicable to multipurpose passenger vehicles under other provisions of this Act, the Secretary shall initiate (not later than sixty days after the date of enactment of this Act) and complete (not later than twelve months after such date of enactment) a rulemaking to revise, where appropriate, in accordance with the applicable provisions of the National Traffic and Motor

Vehicle Safety Act of 1966 (15 U.S.C. 1381 et seq.), including the provisions of section 103 (a) of such Act (15 U.S.C. 1392 (a)) requiring that Federal motor vehicle safety standards be practicable, meet the need for motor vehicle safety, and be stated in objective terms—

(1) Federal Motor Vehicle Safety Standard 216, published as section 571.216 of title 49, Code of Federal Regulations, to provide minimum roof crush resistance standards for multipurpose passener vehicles;

(2) Federal Motor Vehicle Safety Standard 108, published as section 571.108 of title 49, Code of Federal Regulations, to provide for a single, high-mounted stoplamp on multipurpose passenger vehicles; and

(3) Federal Motor Vehicle Safety Standard 208, published as section 571.208 of title 49, Code of Federal Regulations, to extend the requirements of outboard front seat passive restraint occupant protection systems to multipurpose passenger vehicles.

(c) In accordance with the applicable provisions of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. 1381 et seq.), the Secretary shall, not later than twelve months after the date of enactment of this Act, complete a rulemaking—

(1) to review the system of classification of vehicles with a gross vehicle weight under ten thousand

pounds to determine if such vehicles should be reclassified;

(2) to revise Federal Motor Vehicle Safety Standard 202, published as section 571.202 of title 49, Code of Federal Regulations, to provide for head restraints for multipurpose passenger vehicles; and

(3) to establish a Federal Motor Vehicle Safety Standard to protect against unreasonable risk of rollover of multipurpose passenger vehicles.

REAR SEATBELTS

SEC. 305. (a) In accordance with applicable provisions of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. 1381 et seq.), the Secretary shall complete, within twelve months after the date of enactment of this act, a rulemaking to amend Federal Motor Vehicle Safety Standard 208, published as section 571.208 of title 49, Code of Federal Regulations, to provide that the outboard rear seat passengers of all passenger automobiles, except convertibles, manufactured after September 1, 1989, shall have lap and shoulder seatbelt protection, and that the outboard rear seat passengers of all multipurpose passenger vehicles and all convertible passenger automobiles manufactured after September 1, 1990, shall have lap and shoulder seatbelt protection.

(b) Notwithstanding any other provison of law, not less than 10 percent of the funds authorized to be appropriated under section 209 of the Motor Vehicle Information and Cost

Savings Act (15 U.S.C. 1949) in fiscal years 1990 and 1991 shall be utilized to disseminate information to consumers regarding the manner in which passenger automobiles may be retrofitted with lap and shoulder rear seatbelts.

CERTIFICATION OF BUMPERS

SEC. 306. The Motor Vehicle Information and Cost Savings Act (15 U.S.C. 1901 et seq.) is amended by inserting after section 102 the following new subsection:

"DISCLOSURE OF BUMPER IMPACT CAPABILITY

"SEC. 102A. (a) The Secretary shall promulgate, in accordance with the provisions of this section, a regulation establishing passenger motor vehicle bumper system labeling requirements. Such regulation shall apply to passenger motor vehicles manufactured for model years beginning more than one hundred and eighty days after the date such regulation is promulgated, as provided in subsection (c)(2) of this section.

"(b)(1) The regulation required to be promulgated in subsection (a) of this section shall provide that, before any passenger motor vehicle is offered for sale, the manufacturer shall affix a label to such vehicle, in a format prescribed in such regulation, disclosing an impact speed at which the manufacturer represents that the vehicle meets the applicable damage criteria.

"(2) For purposes of this subsection, the term 'applicable damage criteria' means the damage criteria applicable under section 581.5(c) of title 49, Code of Federal Regulations (as in effect on the date of enactment of this section).

"(c)(1) Not later than ninety days after the date of enactment of this section, the Secretary shall publish in the Federal Register a proposed initial regulation under this section.

"(2) Not later than one hundred and fifty days after such date of enactment, the Secretary shall promulgate a final initial regulation under this section.

"(d) The Secretary may allow a manufacturer to comply with the labeling requirements of subsection (b) of this section by permitting such manufacturer to make the bumper system impact speed disclosure required in subsection (b) of this section on the label required by section 506 of this Act or section 3 of the Automobile Information Disclosure Act (15 U.S.C. 1232).

"(e) The regulation promulgated under subsection (a) of this section shall provide that the information disclosed under this section be provided to the Secretary at the beginning of the model year for the model involved. As soon as practicable after receiving such information, the Secretary shall furnish and distribute to the public such information in a simple and readily understandable form in order to facilitate comparison among the various types of passenger motor vehicles. The Secretary may by rule require automobile dealers to distribute to prospective purchasers any information compiled pursuant to this subsection.

"(f) For purposes of this section, the term 'passenger motor vehicle' means any motor vehicle to which the standard under part 581 of title 49, Code of Federal Regulations, is applicable.".

CHILD BOOSTER SEATS

SEC. 307. (a) In accordance with applicable provisions of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. 1381 et seq.), the Secretary shall conduct a rulemaking to amend Federal Motor Vehicle Safety Standard 213, published as section 571.213 of title 49, Code of Federal Regulations, to increase the safety of child booster seats used in passenger automobiles. The rulemaking shall be initiated not later than thirty days after the date of enactment of this Act and completed not later than twelve months after such date of enactment.

(b) As used in this section, the term "child booster seat" has the meaning given the term "booster seat" in section 571.213 of title 49, of Code of Federal Regulations, as in effect on the date of the enactment of this Act.

AIRBAG REQUIREMENT FOR FEDERAL PASSENGER VEHICLES

SEC. 308. The Secretary, in cooperation with the Administrator of General Services and the heads of other appropriate Federal agencies, shall establish a program requiring that all passenger automobiles acquired after September 30, 1990, for use by the Federal Government be equipped, to the maximum extent practicable, with driver-side airbags and that all passenger automobiles acquired after September 30, 1993, for use by the Federal Government be equipped, to the maximum extent practicable, with airbags for both the driver and front seat outboard passenger seating positions.

STATE MOTOR VEHICLE SAFETY INSPECTION PROGRAMS

SEC. 309. Part A of title II of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 1961 et seq.) is amended by adding at the end the following new section:

"STATE MOTOR VEHICLE SAFETY INSPECTION PROGRAMS

"SEC. 304. (a) The Secretary shall, within thirty days after the date of the enactment of this section, enter into appropriate arrangements with the National Academy of Sciences to conduct a study of the effectiveness of State motor vehicle safety inspection programs in—

"(1) reducing motor vehicle accidents that result in injuries and deaths; and

"(2) limiting the number of defective or unsafe motor vehicles on the highways.

"(b)(1) The study shall include an evaluation of the implementation, inspection criteria, personnel, budgeting, and enforcement of all types of State motor vehicle inspection programs or periodic motor vehicle inspection programs, including inspections of motor vehicle brakes, glass, steering, suspension, and tires.

"(2) If warranted by the study, the National Academy of Sciences shall develop and submit to the Congress recommendations for an effective and efficient State motor vehicle safety inspection program.

"(c) The study shall also consider the feasibility of use by States of private organizations to conduct motor vehicle safety inspection programs of combining safety and emission inspection programs.

"(d) Appropriate public and private agencies and organizations, including the Secretary, the Administrator of the Environmental Protection Agency, affected industries and consumer organizations, State and local officials, and the motor vehicle insurance industry should be consulted in conducting the study required under this section.

"(e) The study required by subsection (a) shall be completed and transmitted to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Energy and Commerce of the House of Representatives within nineteen months after the date of enactment of this section.".

RECALL OF CERTAIN MOTOR VEHICLES

SEC. 310. (a) Section 153 of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. 1413) is amended by adding at the end the following new subsections:

"(d) If the Secretary determines that a notification sent by a manufacturer pursuant to subsection (c) of this section has not resulted in an adequate number of vehicles or items of equipment being returned for remedy, the Secretary may direct the manufacturer to send a second notification in such manner as the Secretary may by regulation prescribe.

"(e)(1) Any lessor who receives a notification required by section 151 or 152 pertaining to any leased motor vehicle shall send a copy of such notice to the lessee in such manner as the Secretary may by regulation prescribe.

"(2) For purposes of this subsection, the term 'leased motor vehicle' means any motor vehicle which is leased to a person for a term of at least four months by a lessor who has leased five or more vehicles in the twelve months preceding the date of the notification.".

(b) Section 154 of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. 1414) is amended by adding at the end the following:

"(d) If notification is required under section 151 or by an order under section 152(b) and has been furnished by the manufacturer to a dealer of motor vehicles with respect to any new motor vehicle or new item of replacement equipment in the dealer's possession at the time of notification which fails to comply with an applicable Federal motor vehicle safety standard or contains a defect which relates to motor vehicle safety, such dealer may sell or lease such motor vehicle or item of replacement equipment only if—

"(1) the defect or failure to comply with has been remedied in accordance with this section before delivery under such sale or lease; or

"(2) in the case of notification required by an order under section 152(b), enforcement of the order has been restrained in an action to which section 155(a) applies or such order has been set aside in such an action.

Nothing in this subsection shall be construed to prohibit any dealer from offering for sale or lease such vehicle or item of equipment.".

STUDY OF DARKENED WINDOWS

SEC. 311. The Administrator of the National Highway Traffic Safety Administration shall conduct a study of the use of darkened windshields and window glass in passenger automobiles. In particular, the study shall consider the effects of such use on the safe operation of passenger automobiles, as well as on the hazards from such use to the safety of law enforcement personnel. In conducting such study, the Administrator shall consult with appropriate industry representatives, officials of law enforcement departments and agencies, and consumer representatives. The Administrator shall submit the results of such study to the Committee on Commerce, Science, and Transportation of the Senate and the

Committee on Energy and Commerce of the House of Representatives not later than six months after the date of enactment of this Act.

PETITIONS REGARDING CORPORATE AVERAGE FUEL ECONOMY STANDARDS

SEC. 312. Section 502(d)(1) of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 2002(d)(1)) is amended by striking "1980. Such application" and inserting in lieu thereof the following: "1980, or for any model year after model year 1991. Any application seeking such modification".

JUDICIAL REVIEW OF ACTIONS ON CERTAIN PETITIONS

SEC. 313. Section 124(d) of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. 1410a(d)) is amended by adding at the end the following: "The denial of such petition is final agency action subject to judicial review as provided in section 706 of title 5, United States Code.".

BUMPER STANDARD

SEC. 314. (a) Not later than one year after the date of enactment of this Act, the Secretary shall, in accordance with section 102 of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 1912), amend the bumper standard published as part 581 of title 49, Code of Federal Regulations, to ensure that such standard is identical to the bumper standard under such part 581 which was in effect on January 1, 1982. The amended standard shall apply to all passenger automobiles manufactured after September 1, 1990.

(b) Nothing in this section shall be construed to prohibit the Secretary from requiring under such part 581 that passenger automobile bumpers be capable of resisting impact speeds higher than those specified in the bumper standard in effect under such part 581 on January 1, 1982.

GRANT PROGRAM CONCERNING USE OF SEATBELTS AND CHILD RESTRAINT SYSTEMS

SEC. 315. (a) Chapter 4 of title 23, United States Code, is amended by adding at the end the following new section:

"§ 411. Seatbelt and child restraint programs

"(a) Subject to the provisions of this section, the Secretary shall make grants to those States which adopt and implement seatbelt and child restraint programs which include measures described in this section to foster the increased use of seatbelts and the correct use of child restraint systems. Such grants may only be used by recipient States to implement and enforce such measures.

"(b) No grant may be made to a State under this section in any fiscal year unless such State enters into such agreements with the Secretary as the Secretary may require to ensure that such State will maintain its aggregate expenditures from all other sources for seatbelt and child restraint programs at or above the average level of such expenditures in its two fiscal years preceding the date of enactment of this section.

"(c) No State may receive grants under this section in more than three fiscal years. The Federal share payable for any grant under this section shall not exceed—

"(1) in the first fiscal year a State receives a grant under this section, 75 per centum of the cost of implementing and enforcing in such fiscal year the seatbelt and child restraint program adopted by the State pursuant to subsection (a) of this section;

"(2) in the second fiscal year the State receives a grant under this section, 50 per centum of the cost of implementing and enforcing in such fiscal year such program; and

"(3) in the third fiscal year the State receives a grant under this section, 25 per centum of the cost of implementing and enforcing in such fiscal year such program.

"(d) Subject to subsection (c), the amount of a grant made under this section for any fiscal year to any State which is eligible for such a grant under subsection (e) of this section shall equal 20 per centum of the amount apportioned to such State for fiscal year 1990 under section 402.

"(e) A State is eligible for a grant under this section if such State—

"(1) has in force and effect a law requiring all occupants of a passenger automobile to use seatbelts;

"(2) has achieved—

"(A) in the year immediately preceding a first-year grant, the lesser of either (i) 70 per centum seatbelt use by occupants and passenger automobiles in the State or (ii) an increase of at least 20 per centum over the rate of seatbelt use by such occupants achieved in 1989;

"(B) in the year immediately preceding a second-year grant, the lesser of either (i) 80 per centum seatbelt use by occupants or (ii) an increase of at least 35 per centum over the rate of seatbelt use by such occupants achieved in 1989;

"(C) in the year immediately preceding a third-year grant, the lesser of either (i) 90 per centum seatbelt use by occupants or (ii) an increase of at least 45 per centum over the rate of seatbelt use by such occupants achieved in 1989; and

"(3) has in force and effect an effective program, as determined by the Secretary, for encouraging the correct use of child restraint systems.

"(f) As used in this section, the term 'child restraint system' has the meaning given such term in section 571.213

of title 49, Code of Federal Regulations, as in effect on the date of enactment of this section.

"(g) There are authorized to be appropriated, from any funds in the Treasury not otherwise appropriated, to carry out this section, $10,000,000 for the fiscal year 1990, and $20,000,000 for each of the fiscal years 1991 and 1992.".

(b) The analysis of chapter 4 of title 23, United States Code, is amended by adding at the end thereof the following:

"411. Seatbelt and child restraint programs.".

○

Senator **Bryan**. We will begin with our first witness, Mr. Felrice. In the interest of time, Mr. Felrice, I would like to ask you to try to confine your testimony to five minutes if you can, and to ask each of the other witnesses who will appear in the subsequent panels to do so as well.

STATEMENT OF BARRY FELRICE, ASSOCIATE ADMINISTRATOR FOR RULEMAKING, NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Mr. **Felrice**. Thank you, Mr. Chairman. I appreciate the opportunity to appear before you today to discuss the Administration's position on S. 673.

But before I do that, I would like to speak for just a few moments on the highway safety picture in general and the activities of the agency to improve highway safety. In 1988 the fatality rate on the Nation's highways remained at the all-time low of 2.4 fatalities per 100 million vehicle miles. If the rate had remained at the level that existed in 1980, we estimate that about 18,000 more people would have died last year than the 46,900 who did.

But while the 1988 data show that we are holding onto our safety gains, they also suggest that we will need to do much more to push both the fatality rate and the total number of fatalities and injuries downward.

This is a very important year for motor vehicle safety. It marks the concluding year of the four-year phase-in of the automatic occupant protection requirements of Federal Motor Vehicle Safety Standard No. 208. Beginning this September 1st, all new passenger cars must be equipped with automatic protection.

I am pleased to say that many of these cars will have an air bag for the driver, and the number of such installations both for the driver and front seat passengers will increase rapidly during the following years. We estimate that about 2.9 million model year 1990 passenger cars will be equipped with air bags, and that number should more than double by 1993 or 1994 and be within the five to six million range.

Reaching this milestone we believe marks an important advance in motor vehicle safety and hopefully concludes a 20-year controversy about the best means to protect occupants in frontal crashes.

To complement the effects of the new automatic occupant protection systems, we are reinforcing our campaign to raise safety belt usage. We believe very strongly that it is the combination of new technology and higher safety belt use that will produce the greatest increase in motor vehicle safety. It is very important to remind owners of air bag-equipped vehicles that they must wear their safety belts to obtain the maximum protection.

The news on safety belt use is also encouraging. We now have 32 states, plus the District of Columbia, which have safety belt use laws, and our surveys of safety belt use show that drivers are now buckling up to the level of 47 percent, compared to just 14 percent five years ago. We will continue our efforts to raise this level even higher.

We are also very active on other vehicle safety measures. Last year we proposed requirements for upgraded side impact protection. This is probably the most complex rulemaking the agency has ever undertaken, involving a new dummy as well as new injury criteria and sophisticated procedures to measure the potential level of injury in passenger cars in side crashes.

We are also very active in extending safety standards to light trucks and vans. We issued a proposal last year to extend the head restraint requirement to such vehicles. We have also issued a proposal to require three-point belts in the rear seats of not only passenger cars, but also light trucks, vans, and sport utility vehicles.

In terms of our enforcement and defect efforts, last year we opened 136 new safety defect investigations, which was the most since 1973. We conducted 165 vehicle tests and nearly 1,000 equipment tests. We also improved our ability to respond to problems reported through owner complaints or compliance testing and reduced the average time to complete our investigations.

Last year manufacturers conducted 165 safety recalls, resulting in nearly 4.2 million vehicles being recalled.

I must also mention our drunk driving activities. We estimate that the proportion of fatalities involving intoxicated drivers remained at 40 percent last year. While this represents a significant reduction from the level in prior years, there does seem to be a leveling off, and we will have to continue to strengthen our programs in that area.

Last year we streamlined the regulations for the 408 grant program for alcohol, enabling five additional states to qualify for those funds. We sponsored workshops involving more than 40 states to examine the trends in countermeasures and alcohol-related fatalities. We supported workshops by the Mothers Against Drunk Driving to help focus their groups.

We trained police officers on drug evaluation and classification techniques, and made great strides with the TEAM program, including new campaigns by major league baseball and the National

Basketball Association. We believe that the TEAM program continues to be a model for public and private sector cooperation in reducing drinking behavior at sporting events.

As for the legislation itself, Mr. Chairman, as your statement mentioned, this legislation is similar to legislation passed by the Senate in previous years and which the Department has respectfully opposed in those years, and we must continue to do so at this time.

Even though we have begun many of the regulatory actions specified, we feel that the provisions in the bill requiring us to initiate or complete these actions within prescriptive time frames are overly restrictive. These time frames could interfere with our full consideration of public comments and could lead to litigation which would ultimately delay the effective date of those standards.

As for new rulemaking provisions regarding rollover and increasing the safety of child booster seats, both these are currently the focus of agency research, but the bill would have us begin rulemaking before that research is completed. Therefore we must also respectfully oppose each of those provisions.

As for five mile per hour bumpers, the agency completed a very thorough rulemaking in 1982. That decision was upheld by the courts in 1985 and the agency further evaluated it in 1987. We are unaware of any new evidence to lead us to change our decision to raise the current 2½ mile per hour bumper standard.

And lastly, Mr. Chairman, I would like to strongly oppose the provisions of the bill which deal with judicial review of denials for defect and noncompliance petitions. We believe that this is an invitation to litigation and judicial intervention in matters of prosecutorial discretion. The availability of our resources is one of the factors we consider in deciding to open up an investigation, and we do not believe that the courts are in a position to weigh that type of evidence.

With that and since I have run out of time, Mr. Chairman, I will conclude my statement. I will be glad to try and answer any questions you may have.

[The statement and questions and answers follow:]

STATEMENT OF BARRY FELRICE
ASSOCIATE ADMINISTRATOR FOR RULEMAKING
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
BEFORE THE SUBCOMMITTEE ON CONSUMER OF THE
SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
REGARDING VEHICLE SAFETY ISSUES AND S. 673

April 5, 1989

Mr. Chairman and Members of the Committee.

I am pleased to appear before you today to discuss current vehicle safety issues and to comment on S. 673, the "National Highway Traffic Safety Administration Authorization Act of 1989." With me at the witness table are George Parker, Associate Administrator for Enforcement, and George Reagle, Associate Administrator for Traffic Safety Programs.

I would like to begin by reporting our latest data about highway safety. I am pleased to report that in 1988 the fatality rate on the nation's highways remained at the all-time low of 2.4 fatalities per hundred million miles travelled. The rate first reached that level in 1987, after declining more than 25 per cent from its 1980 level. If the rate had remained at its 1980 level, we estimate that about 18,000 more people would have died in crashes in 1988 than the 46,900 shown by our preliminary estimate for 1988. The 1988 data show that we're holding on to our gains, but they also suggest that we'll need to do more to push both the fatality rate and the total number downward. Let me share with you how we plan to do this, both in the short term and over the longer term.

This year is an important year for safety. It marks the concluding year of the four-year phase-in of the occupant protection requirements of Standard No. 208. Beginning on September 1, all new passenger cars will be equipped with automatic protection. Many of these cars will have an air bag for the driver, and the number of air bag installations, both for the driver and for the front passengers, will increase rapidly during the following years. Our current estimate, based on publicly available information from the manufacturers, is that about 2.9 million vehicles will be equipped with air bags during model year 1990. We believe that this number will increase to the range of 5 to 6 million annually by the mid-1990's. For customers who prefer an alternative form of protection, the manufacturers will continue to offer a variety of automatic safety belt designs. Reaching this milestone marks an important advance in safety and concludes a 20-year controversy about the best means to protect occupants in frontal crashes.

Since the phase-in of automatic crash protection is already in its third year, we have had the opportunity to test a number of vehicles with the new systems, in our compliance program as well as in our consumer-oriented New Car Assessment program. I am pleased to report that these tests have shown that the vehicles are complying with the stringent requirements of the standard with room to spare.

To complement the effects of the new occupant protection systems, we are reinforcing our campaign to raise safety belt use. We believe strongly that it is the combination of new technology and higher safety belt use that will produce the greatest increase in safety. It is important to remind owners of new air-bag equipped cars that safety belt use is still needed for overall protection.

The news on safety belt use continues to be encouraging. Last year, safety belt use laws became effective in three new states, increasing the year-end total to 31 states and the District of Columbia. Recently, Wyoming passed a belt use law, bringing the total to 32 states. Our survey of safety belt use in 19 cities showed that drivers have increased their use of belts to 47 per cent--compared to just 14 per cent in 1984. We will continue our efforts to help achieve higher use rates in States with belt laws and to encourage adoption of belt laws in other States.

In addition to our work on air bags and safety belts, we are well along on a number of other vehicle safety measures. Last year, we proposed new requirements for upgraded side impact protection for passenger cars. This is an extremely ambitious rulemaking project, since it involves the development of a sophisticated new test dummy, as well as injury criteria associated with the dummy, and other technical specifications. We are now reviewing the very extensive comments received, and we hope to proceed with the next step in the rulemaking later this year. Last year, we also issued proposals to extend head restraint requirements to light trucks and to require 3-point belts in the rear seats of passenger cars and light trucks. We also issued a proposal to reclassify light trucks, vans, and sport-utility vehicles for purposes of safety standards. For the somewhat longer term, last October we began a landmark fleet test of heavy trucks equipped with the new generation of antilock brakes that will give us the real-world experience needed to demonstrate reliability and maintainability, which the courts have required for NHTSA to pursue rulemaking in this area. We believe that these measures will result in significant safety improvements.

Our oversight of the safety of the current vehicle fleet has continued to improve. In 1988, we opened 136 new safety defect investigations--the most in 15 years. In our testing program to determine compliance with the vehicle safety standards, we conducted 165 vehicle tests, involving 50 vehicles, and 937 equipment tests, involving 2362 items of motor vehicle equipment. We improved our ability to respond to problems reported through owner complaints or compliance testing, and significantly reduced the average time to complete investigatory actions. During the year the manufacturers conducted 165 safety recalls, resulting in nearly 4.2 million vehicles recalled. We also increased our enforcement efforts in the odometer fraud program, referring 35 large-scale investigations to the Department of Justice for prosecution.

No overview of highway and traffic safety would be complete without mentioning the leading cause of fatal and serious injury crashes--drunk driving. We estimate that the proportion of fatalities involving intoxicated drivers remained at 40 per cent in 1988. This represents a significant improvement over the level in earlier years, but it also shows how far we have to go.

We took several steps during 1988 to strengthen our drunk and drugged driving programs. We streamlined the regulations of the alcohol safety incentive grant program under section 408, enabling five additional states to qualify for grants to further improve their alcohol countermeasure programs; we sponsored workshops involving more than 30 states to examine trends in countermeasures and alcohol-related fatalities in each state; we supported regional workshops by Mothers Against Drunk Driving to help activist groups focus their efforts, including development of support for administrative license suspension; we trained police officers in 6 sites on drug evaluation and classification (DEC) techniques to improve capabilities to detect and prosecute drugged drivers; and we made great strides with the TEAM program, including new national campaigns by Major League Baseball and the National Basketball Association. The TEAM program continues to be a model for coordinated projects between the public and private sectors to encourage responsible drinking behavior at sporting events. We will continue those efforts this year, with an expansion of DEC training to four more sites, and with timely issuance of regulations to implement the new section 410 drunk driving prevention incentive grant program.

I will turn now to a short statement of our views on S. 673. As you noted in your introductory statement, Mr. Chairman, the bill derives most of its provisions from S. 853, the NHTSA authorization bill passed by the Senate in the last Congress. At that time the Department of Transportation opposed some of the provisions of S. 853.

Even though we have begun many of the regulatory actions specified in the bill, such as side impact protection for passenger cars and head restraints for light trucks, the provisions in the new bill requiring us to initiate or complete these actions within prescriptive time frames are overly restrictive. These time frames could interfere with our full consideration of public comments and the proper resolution of complex technical issues. Since these directives are in conflict with the statutory criteria for rulemaking under the Vehicle Safety Act, they may lead to protracted litigation - which could ultimately delay the effective date of new standards. The rulemaking requirement on handicapped parking is probably unnecessary. A similar rulemaking requirement, without funding sanctions or linkage to the section 402 program, was enacted in the last Congress, and accomplishes much the same thing.

New rulemaking provisions in S. 673 include a requirement for rulemaking on rollover protection for multipurpose passenger vehicles and a rulemaking requirement to increase the safety of child booster seats. Each of these areas is a current focus of agency research, but the bill seems to have us begin rulemaking before we complete the research. Therefore, we must respectfully oppose each of these provisions as we do the rulemaking provisions carried over from S. 853.

We must also object to the proposed reinstatement of the 5 mph bumper standard, a feature which we amended by careful rulemaking in 1982, in a decision upheld by the courts in 1985 and further validated by a rigorous evaluation in 1987. Evidence does not suggest that there is any safety or net economic benefit in reviving the earlier standard.

The studies by the National Academy of Sciences on vehicle crashworthiness ratings and periodic state motor vehicle inspection programs are both costly and time consuming. Our experimental New Car Assessment Program already provides useful information on frontal crashworthiness to consumers, and we are nearly finished with the report on motor vehicle inspection programs required by our appropriations act for FY 1988. We are concerned that further mandatory study measures will divert our limited research funds into non-productive uses.

The new bill adds a provision for the judicial review of denials of defect and non-compliance petitions. In response to your request for comments, I want to express our strong objections to this provision because it is an invitation to litigation and judicial intervention in matters of prosecutorial discretion. Such a statutory right to judicial review of an enforcement matter is exceedingly rare. The agency reviews a defect petition or non-compliance petition in the context of other pending enforcement matters, all of which have a claim on our limited investigative resources. If NHTSA is compelled to "grant" an enforcement petition in one case, it will necessarily be unable to open or pursue some other investigatory action. A court would not have the information necessary to make such resource determinations and should not be given such a role in the investigative process. Of equal concern, that type of judicial review will divert agency resources (lawyers and engineers) into litigation - thus further reducing our ability to investigate real safety problems. The petition process has worked well without the availability of judicial review, and we believe it will continue to serve the interests of vehicle safety as it is presently structured.

The bill also contains measures designed to promote occupant protection by requiring the purchase of air bag-equipped cars for the Federal fleet, and through the establishment of a new incentive grant program for States that enact safety belt use laws and achieve specified usage levels. Although we support the widespread introduction of air bags and devote a large amount of our time and energy to helping the States increase safety belt use, we believe the goal of increased occupant protection can be achieved without the expenditure of additional Federal funds. As the manufacturers produce increasing numbers of cars with air bags as standard equipment, the air bags will decline in price and become available in a larger selection of vehicles. This will achieve the objective of the proposed Federal purchases. With respect to safety belt use, we believe that coordinated efforts now being undertaken at the Federal, State and local levels have already produced substantial increases in safety belt use, and will continue to do so, without the need for the further expenditure of dedicated Federal funds. We also note that section 402 grant funds are already available to be used by the States for safety belt promotional activities.

Mr. Chairman, this completes my prepared statement. My colleagues and I will be glad to try to answer any questions you may have.

U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

APR 14 1989

The Honorable Richard H. Bryan
Chairman, Subcommittee on Consumer
Senate Committee on Commerce, Science
and Transportation
Washington, D.C. 20510

Dear Mr. Chairman:

In response to your letter of April 7, 1987, I am enclosing our answers to questions for the record of the Subcommittee's April 5 hearing on the activities of the National Highway Traffic Safety Administration. Several of our answers refer to reports and studies which, while relevant to the questions, are too lengthy to be included in the report of the hearing. We will be glad to provide these materials for review at your convenience.

We appreciate the opportunity to express our views.

Sincerely,

Barry Felrice

Barry Felrice
Associate Administrator for
Rulemaking

Enclosures

Question 1:

Please provide, for the last ten years, the number of petitions for defect investigation received by NHTSA, the number granted and denied, and the number of denials challenged in court. For each court challenge, please provide the case caption and the result of the litigation. Include in your answer information about Nader v. Volpe, decided June 26, 1970, involving GM trucks with Kelsey-Hayes wheels.

Answer:

Chart No. 1 (included after this Answer) indicates the number of defect petitions received since 1979 and their disposition. The only denial challenged in court involved the Center for Auto Safety petition to reopen the Ford "Park-to-Reverse" investigation. In Center for Auto Safety v. Dole, No. 85-2861 (D.D.C. April 16, 1986), the District Court granted summary judgment for the Government, finding that the denial was not reviewable and, alternatively, that the denial was not "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." On appeal, a panel of the District of Columbia Circuit initially reversed the District Court's judgment. 828 F.2d 799 (D.C. Cir. 1987). However, on rehearing the panel's original opinion was vacated, and the order of the District Court denying review was affirmed. 846 F.2d 1532 (D.C. Cir. 1988).

You have asked specifically about Nader v. Volpe, No. 960-70 (D.D.C., order of remand issued June 26, 1970, amended June 30, 1970). That case did not involve judicial review of a petition for a defect investigation. Rather, it was a challenge to a determination made by the Administrator of the Federal Highway Administration (prior to the creation of NHTSA) to accept General Motors' offer to conduct a partial recall of certain vehicles equipped with Kelsey-Hayes wheels. (At that time -- prior to the 1974 Amendments -- the Government could not order a manufacturer to conduct a recall).

The press release announcing the agency's action stated, erroneously, that Government engineers had concluded that the only safety-related problem was with vehicles that had been equipped with campers or other special bodies. In addition, the agency had approved GM's draft of an owner notification letter that affirmatively stated that there was no safety related defect in vehicles without campers. Since this statement was contradicted by the investigative reports prepared by the agency's engineers -- which concluded that there appeared to be a safety problem with all the vehicles equipped with the wheels in question -- the Court was faced with a situation in which the agency had affirmatively misled the public. The Court therefore ordered the agency to "complete" (i.e., continue) its investigation of the wheels on vehicles not equipped with campers.

The District Court's order in Nader v. Volpe was not appealed, and the case became moot and was dismissed on January 25, 1971, after the agency brought a civil action against General Motors with respect to all vehicles equipped with the Kelsey-Hayes wheels. Moreover, the District Court's rationale has been substantially undermined by the Supreme Court's opinion in Heckler v. Chaney, 470 U.S. 821 (1985), which confirmed that most agency prosecutorial decisions are immune from judicial review. In any event, to the extent Nader v. Volpe remains good law after Chaney, it at most stands for the proposition that an agency decision to terminate a defect investigation on a basis that is inconsistent with the agency's official, publicly-available reports on the same matter may be reviewable. See Center for Auto Safety v. Lewis, No. 81-0550 (D.D.C., October 21, 1981) slip op. at 7, aff'd, 685 F.2d 656 (D.C.Cir. 1982), a pre-Chaney case in which Judge Gasch distinguished between an agency decision about whether to begin an investigation -- which he found to be discretionary and thus nonreviewable -- and a decision to settle such an investigation -- which he found reviewable, albeit under a "highly deferential" standard of review. Thus, contrary to the statement in Mr. Ditlow's testimony, it is not accurate to say that petition denials were judicially reviewable prior to the 1988 Ford Transmissions case.

CHART 1

Calendar Year	Defect Petitions received	Granted	Denied	Challenged in Court
1979	18	4	14	0
1980	9	0	9	0
1981	13	2	11	0
1982	12	5	7	0
1983	18	9	9	0
1984	19	5	14	0
1985	26	4	22	1[1]
1986	27[2]	11	17	0
1987	29[3]	9	22	0
1988	18[4]	6	13	0

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[1] DP85-015: Center for Auto Safety petition to reopen Ford "Park-to-Reverse" investigation.

[2] One petition granted in part and denied in part.

[3] Two petitions granted in part and denied in part.

[4] One petition granted in part and denied in part.

Question 2:

Please provide, in either summary or full text form, the results of all research performed by NHTSA staff about the correlation between the rate of vehicle rollover in accidents and a vehicle's width-to-center-of-gravity-height ratio. Include in your answer the dates of the research, and any action taken by NHTSA as a result of that research.

Answer:

The first activity within NHTSA to evaluate the possible correlations between the involvement of vehicles in rollover accidents and a vehicle's rollover stability factor, defined as the ratio of one-half the vehicle's track width to its center of gravity height, is documented in a report titled, Analysis of the Relationship between Vehicle Rollover Stability and Rollover Risk Using the NHTSA CARDfile Accident Database. A copy of that report is being provided for the Subcommittee's review. The analyses summarized in that report were conducted between November 1986 and April 1987.

[This report is available in the Subcommittee's files].

Basically, the study found a correlation between a vehicle's stability factor and the likelihood of a rollover occurring, given a single vehicle accident. The study, however, indicated a much lower correlation between the stability factor and the more general accident involvement measure of rollovers per registered vehicle. It seems that other significant factors are related to a vehicle's overall likelihood of being involved in rollover accidents, or more precisely, in the likelihood of a vehicle's being involved in the types of single vehicle accidents that have a high probability of resulting in a rollover. The analyses did not include an exhaustive evaluation of the possible impact of other vehicle factors, such as wheelbase or the effect of different suspension systems.

As a result of this information, as well as other data and the agency's general concern regarding the rollover safety problem, the agency developed a plan of research activities to address this issue. A summary of the current status of that research is included in the response to Question 6.

The other NHTSA effort that addressed the correlation between rollover accident involvement and the vehicle rollover stability factor was the analysis performed in the agency's review of the petition for rulemaking submitted by then-Congressman, now Senator, Timothy E. Wirth concerning rollover. That petition requested that the agency promulgate a safety standard requiring that all passenger cars, light trucks and vans have a rollover stability factor of at least 1.20. These analyses are included in a report titled, Technical Evaluation of Rulemaking Petition - Timothy E. Wirth Petition on Rollover Propensity, a copy of which is being provided for the Subcommittee's review. These original analyses were performed between October 1986 and March 1987, and were updated between September 1987 and November 1987. [This report is available in the Subcommittee's files].

That review examined some of the same data analyzed in the CARDfile report mentioned above, as well as analyzing accident data from the Fatal Accident Reporting System (FARS). The results for the FARS analyses, which examined only utility vehicles, found much lower correlations between the likelihood of a rollover accident and vehicle rollover stability factor. However, the analyses found high levels of correlation between both single vehicle and rollover accident rates and vehicle wheelbase; in particular, the correlations with single vehicle and rollover accidents per registered vehicle were quite high. These results, together with those of the CARDfile data, do not lead to obvious and consistent conclusions but together they have influenced the direction of the various agency research programs, detailed in the aforementioned summary, which will enhance the agency's understanding of rollover accident and injury causation, and enable the agency to proceed with appropriate rulemaking.

Question 3:

The Subcommittee has received information indicating that the unanimous recommendation of the NHTSA staff office to grant the 1986 petition for rulemaking filed by Senator Wirth for a rollover performance standard was overruled by Administrator Steed. Is that information correct? If so, please state the bases for the staff recommendation and the bases for Ms. Steed's contrary determination.

Answer:

We believe that the information given to the Subcommittee is incorrect. To set the record straight, we are providing the following complete description of the deliberations which preceded the denial of the petition.

The petition from Senator (then-Representative) Wirth for rulemaking to establish a utility vehicle rollover standard based on the "stability factor" was received by the agency on September 17, 1986, and referred to the Rulemaking Office for technical review. (That portion of the petition requesting a defects investigation of utility vehicles was separately referred to the Enforcement Office.) On April 3, 1987, after comprehensive review and analysis, the Associate Administrator for Rulemaking circulated his draft evaluation of the rulemaking petition. That evaluation noted that utility vehicles as a class do have the highest rollover involvement rate, but concluded that the "stability factor" urged by the petition was not by itself an adequate or reasonable predictor of a vehicle's rollover propensity, and that further investigation and research were needed on a variety of rollover-related factors (including vehicle size, weight and wheelbase). The Rulemaking draft therefore recommended that the agency deny the petition for rulemaking based on the stability factor.

The draft evaluation was circulated to the four other NHTSA offices involved in this subject area (Chief Counsel, Enforcement, Plans & Policy, and Research & Development), which responded in separate memoranda later that month. Three of those offices agreed with the rationale of the draft evaluation, that the stability factor was not an appropriate regulatory answer to the rollover problem. Of those three, one also agreed with the recommended disposition of the petition (denial); while two suggested that the petition could be "granted" in the broad sense (i.e., to explore various regulatory approaches to the rollover issue), but specifically cautioned against use of the stability factor. The remaining office argued that the stability factor was a better predictor of rollover involvement than indicated in the draft evaluation; that office also recommended granting the petition as a means of stimulating further study of the problem, while acknowledging the potential drawbacks of using the stability factor for regulatory purposes.

The comments on the draft recommendation led the Associate Administrator for Rulemaking to reconsider his recommendation to deny the petition, but did not alter the underlying analysis and rationale. Although the other Associate Administrators were in general agreement that the stability factor was not a sufficient criterion on which to base a rule, their arguments about the advantages of a broad "grant" led the Associate Administrator for Rulemaking to agree that the agency could grant the petition in the broadest sense. In a memorandum to the Chief Counsel on June 25, 1987, he therefore recommended granting the petition, but emphasized that the agency should stress that the stability factor should not be used as the exclusive basis of a standard. Rather, the agency should indicate that it was already conducting research in the area of vehicle rollover and would develop a comprehensive plan to address this safety problem. It should be emphasized that the "grant" proposed at this stage would not have led to a standard based on the stability factor.

This was the state of affairs as of July 16, 1987, when the petition was discussed at a meeting the Administrator held with the relevant Associate Administrators. As noted in their April memos, the offices generally agreed on the extent of the utility vehicle rollover problem and the need for agency action to address that problem. There was also continued agreement that it would be inappropriate to commence rulemaking based on the stability factor, a general view that there was insufficient research at that point to support specific regulatory standards under the Vehicle Safety Act, support for expanded research into the various issues associated with vehicle rollover, and recognition that the necessary research would take at least two years to complete before specific rulemaking could begin.

With those broad agreements on the substantive issues, the next subject at the meeting was the disposition of the Wirth petition. As noted in several of the memos, there were two options available, both of which were technically consistent with the policy decision: the agency could "grant" the petition, but only in the broad sense of agreeing to pursue research and eventual rulemaking on rollover issues; or it could "deny" the petition, since there was no reasonable likelihood of issuing a standard based on the stability factor, and considerable research was still needed before a specific proposal could be issued. It was noted that, in this case, the question of grant-vs.-deny was primarily one of semantics and public perception, since there would be no substantive difference in the agency's course of action to conduct further research in support of future rulemaking. After further discussion, the Administrator decided it would be more appropriate, and clearer to the public (and the petitioner) to characterize the disposition as a "denial," since the agency was in fact rejecting the specific formula he had recommended. But it was also agreed that the denial notice should include a discussion of the agency's plans to pursue the broader rollover issue and a description of its research program, in addition to the reasons for not adopting the stability factor.

The Associate Administrator for Rulemaking accordingly submitted a memorandum to the Chief Counsel on July 23, 1987, which formally requested the preparation of a notice denying the Wirth petition, based on the July 16 discussion.

The Chief Counsel's office then proceeded to draft a Federal Register notice denying the petition and discussing our rollover research program. In accordance with our regular procedures, that notice was also coordinated with the various Associate Administrators involved in this issue, to assure accuracy in the technical discussions as well as on the legal aspects. The draft notice was submitted first to the Rulemaking Office, in early November 1987, which in turn circulated it to the other three Associate Administrators (Enforcement, Plans & Policy, Research & Development). The three Associate Administrators responded to the draft notice by memos during the period of November 30 - December 2, 1987. Two concurred without comment; another requested changes in several aspects of the discussion of data analysis, but did not object to the denial itself (which had been agreed upon in July). The Chief Counsel's Office revised the notice accordingly, then circulated a final draft, in which all the relevant Associate Administrators concurred. The notice was then submitted to the Administrator for approval. After the Administrator approved it on December 18, the Associate Administrator for Rulemaking signed the notice on December 22, and sent it to the Federal Register. (The notice was published on December 29.)

This represents the complete sequence of substantive actions between the receipt of Senator Wirth's petition and the notice denying the petition. In summary, the agency's staff agreed that (1) rollover of utility vehicles was a serious problem; (2) the "stability factor" was not the regulatory solution to the problem; (3) additional research was needed before a regulatory solution could be developed; and (4) the decision whether to grant or deny the petition would have no significant effect on the agency's ongoing efforts to address the problem. Thus, the Administrator's decision to characterize NHTSA's response to the petition as a "denial" did not represent an overruling of staff recommendations.

Question 4:

Please list any and all action taken by NHTSA to provide consumers with information on bumper impact capability since the bumper standard was reduced to 2.5 mph in 1982 (47 Fed. Reg. 21819 et seq. (May 20, 1982)).

Answer:

In a Notice of Intent issued on May 20, 1982, the agency announced, on its own initiative, that it would undertake a "testing program . . . to determine the extent of actual bumper protection offered by particular bumper systems on new vehicle models."

Accordingly, during 1983, NHTSA initiated the Consumer Information Program on Bumpers. The agency began crash testing under the program in 1984. By February 1985, it had completed tests of 23 passenger cars at 5-, 6-, 7-, and 8-mph corner impacts, and thereupon began an analysis of the test results to determine the relationship of data on repair costs from the tests to data on insurance collision cost and claim frequency.

A Notice requesting comments on the agency's report on the bumper test program was published on January 10, 1986 (51 FR 1321). The report concluded that:

(1) A general correlation between damage repair cost data (test results) and insurance accident repair data was found for 1984 front and 1983 rear bumpers.

(2) A correlation was not found for 1983 front and 1984 rear bumpers.

(3) A correlation between low-speed bumper impact tests and real-world accident experience is not achievable because data sources for low speed accidents and costs do not exist, nor could such data be developed.

Commenters to this notice generally agreed that the agency used the best available data and that it would be either impossible or extremely expensive to create a data base on low-speed, bumper-involved, front and rear accidents. Alternative programs were suggested by some commenters, but all proved far too expensive for the agency to pursue. For example, it was suggested that the agency establish 8 vehicle categories (4 sizes by 2 body styles per size) and test a large (15-25) number of vehicles in each category. The Consumer Information Program had already cost the agency more than a third of a million dollars, exclusive of staff time, and would have cost an additional $2 million, without any greater assurance of success, had the proposed alternatives been undertaken.

At least one manufacturer, Ford, in response to consumer demand for such information, has advertised the bumper impact capabilities of its vehicles with bumpers that exceed the minimum requirements of our current standard. Most automobile manufacturers are providing 5-mph bumpers on at least some of their vehicles in response to perceived consumer demand. All Ford and most GM cars meet the 5-mph bumper requirements according to the representatives of these manufacturers. The Insurance Institute for Highway Safety (IIHS) annually tests a number of vehicles (34 in 1989) and publishes the results in their bi-weekly "Status Report." Since 1973, Consumers Union has performed bumper tests on more than 300 cars and reported the results from time to time in their monthly publication, "Consumer Reports."

Bumper performance levels of 1985 model year passenger cars were obtained by the agency from major manufacturers and placed in the agency's Public Docket (Docket 73-19-N30-035). The agency received few requests for this information and has thus not updated this tabulation. However, we understand that IIHS requests similar information from automobile manufacturers which is used to select those vehicles to test in their annual bumper program.

In general, bumpers are not considered an important attribute by consumers in vehicle purchasing decisions. A consumer research study, sponsored by the agency, concluded that consumers placed bumpers as the 13th most important vehicle purchase characteristic out of 20 -- just ahead of items such as color, seat material, carpeting, and tire wear ("Consumer Attitudes Toward Consumer Information Programs - A Qualitative Report," National Analysts, January 1986).

This lack of interest by consumers, combined with the inability to develop comparative bumper data that is representative of real-world accident data, and the actions of private sector groups, indicates that continued effort in the area of bumper ratings is not the best utilization of agency resources.

Question 5:

Please provide any information obtained by NHTSA, other than that set out at 47 Fed. Reg. 21819 - 21839 (May 20, 1982), regarding the costs to consumers of a 5 mph bumper standard and the savings to consumers provided by such a standard. Include in your answer any information available on estimated costs of consumer inconvenience, including the use of gasoline in obtaining repair estimates, created by a use of a 2.5 mph bumper standard as opposed to a 5 mph standard. Also include any information available on changes in vehicle costs or fuel costs that have occurred as a result of the use of a 2.5 mph standard as opposed to a 5 mph standard since 1982.

Answer:

The bumper standard was modified in 1982 (47 Fed. Reg. 21819 - 21839) to change the damage resistance of car bumpers from 5 mph to 2.5 mph and to allow damage to the bumper itself. The agency undertook an evaluation of the changes to the standard made in 1982 to determine actual benefits, costs and cost effectiveness. The evaluation, published in February 1987, compared collision damage experience and bumper system costs of 1983/84 model cars (which had bumpers built after the modification) to a two-year baseline of 1981/82 model cars (pre-modification).

The evaluation estimated the consumer cost, including the fuel cost, of bumpers and secondary materials to own and operate a car over its 10-year life. The study also included estimates of consumer costs for repairs resulting from low speed collisions likely to occur over the car's life. These consumer costs for cars with bumpers built under the 5 mph standard and for cars with bumpers changed in response to the 2.5 mph standard are as follows:

LIFETIME CONSUMER COSTS (1984 DOLLARS)

Standard	Bumper and Fuel Costs	Repair costs	Total Cost
5 mph	$328	$594	$922
2.5 mph	$284	$630	$914

The evaluation concluded that the costs to consumers have not changed as a result of the modification from 5 to 2.5 mph (an $8 savings as shown above). The net effect, over a car's 10 year life is a small increase in repair costs ($36), which is offset by a reduction in the cost of bumpers ($44).

Because of the greater likelihood of damage in low speed collisions to cars with bumpers changed in response to the 2.5 mph standard, there is a net increase of $4 (1984 dollars) in delay and inconvience over a ten-year car life when compared to cars produced under the 5 mph standard. This estimate is based on surveys disclosing the time spent in various activities associated with a collision -- at the scene, for filling out forms, for estimates, and for repairs -- as well as time without the use of the car. The surveys did not obtain information about the cost of gasoline for obtaining estimates.

Question 6:

What is the status of the rulemaking begun as a result of the granting, in September 1988, of a petition by Consumers Union for rulemaking on vehicle rollover?

Answer:

Consumers Union petitioned the agency on June 2, 1988 to initiate rulemaking to establish minimum standards to protect against unreasonable risk of rollover. After careful review of the petition, NHTSA granted the Consumers Union petition on September 1, 1988. The grant commits NHTSA to initiate rulemaking proceedings to consider the establishment of minimum standards to protect against unreasonable risk of rollover. The agency will initiate rulemaking upon completion of research.

A summary is attached of the studies being conducted by the agency in the area of rollover. Projected time frames for each project are shown on the attached chart.

SUMMARY OF ONGOING AND PLANNED ROLLOVER RESEARCH

Research Program Title	Program Description	Program Sta[illegible] Completion Date
	Accident Data Gathering and Analysis	
a. Maryland Single Vehicle Rollover Study	This program will result in a new accident data base providing specific information pertaining to rollover accident causation.	Ongoing/ Summer 89
b. Analysis of Pickup Truck Rollover Frequency	This program, being conducted by the Transportation Systems Center, analyzes NHTSA's CARD-file data to determine factors common to the rollover risk of pickup trucks. Report will be published in 2nd Q. 1989.	Ongoing/ Summer 89
c. Influence of Rear Axle ABS on Loss of Control and Rollover of Light Trucks	This program compares the crash involvements of light trucks with ABS, with that of light trucks with conventional systems.	Start Aug 89/ Jan 90
d. Analysis of Vehicle, Driver, and Roadway Factors in Rollover	This program will attempt to explain why some factors which do not seem to be intuitively connected to rollover appear to be related to rollover involvement.	Ongoing/ Oct 89
e. Analysis of Vehicle and Roadway Factors	This program will utilize a NASS-database to examine factors leading to rollover such as track width, slope, and soil.	Completed
	Vehicle Dynamics and Computer Simulation	
f. Advanced Rollover Vehicle Model	This program will develop an advanced computer simulation model to analyze the dynamic stability and rollover propensity of light trucks.	Ongoing/ July 89
g. Intermediate Level Models	This program will examine both tripped and maneuver induced rollover.	Ongoing/ May 89
h. High Camber Angle Tire Testing	This program, being done by Calspan, will meet the need for force and moment data in tire testing.	Ongoing/ July 89
i. Sensitivity Analysis of Tripped Rollover	This program used an existing computer simulation model to analyze the sensitivity of a vehicle's rollover propensity to changes in various vehicle factors.	Complete

Research Program Title	Program Description	Program Status/ Completion Date
	Vehicle Dynamics and Computer Simulation (cont.)	
j. Stability and Control Characteristics of Light Trucks and Vans	This program will investigate the extent to which vehicle instabilities during steering and/or braking maneuvers results in loss of control and, ultimately, rollover. This program will include utility vehicles, as well as pickup truck and van type vehicles.	Ongoing/ Sep 89
k. Vehicle Dynamic Stability and Rollover	This program will examine the relationship between vehicle directional control and stability characteristics and loss of control accidents that result in rollover.	Proposal Request Issued/ Jan 91
	Vehicle Test and Evaluation	
l. Effects of Light Truck and Roadside Characteristics on Rollover	This program will evaluate and rank the effects of various vehicle factors and interactions between those vehicle factors and roadside features on the risk of rollover accident involvement.	Proposal Request Issued/ Jan 91
m. Dummy and Vehicle Kinematics in Controlled Rollover Crashes	This program will modify an existing rollover test device and use it to conduct dynamic rollover tests of two pickup trucks, one van and one utility vehicle. The results of these tests will be used to validate simulations of both the vehicle and occupant motions in rollover crashes, and to gather basic information of the crashworthiness characteristics of these vehicles.	Complete
n. Improved Analysis of the Injury Potential in Rollover Crashes	This program will incorporate the results of m., above, and conduct a simulation analysis of the effect of various vehicle factors on occupant injuries and to validate those results with two additional full scale rollover tests.	Contract Awarded Oct 89

Research Program Title	Program Description	Program Status/ Completion Date
	Vehicle Test and Evaluation (cont.)	
o. Vehicle Parameter Measurement	Fifty autos and fifty-eight light trucks have been tested to determine various dynamic and geometric parameters (e.g., center of gravity, moments of inertia...). These vehicle parameters are needed to carry out computer simulations.	Complete
p. Survey of Existing Rollover Research and and Test Facilities	Research facilities are being surveyed and evaluated to determine which labs have facilities/procedures suitable for rollover/vehicle dynamics measurements.	Ongoing/ Dec 89
q. Influence of Handling Properties on Rollover Rates	This program will measure handling properties in an attempt to correlate them with accident data.	Ongoing/ Sep 90

Question 7:

Current law requires your agency to act on petitions for rulemaking and defect investigation within 120 days of receipt. Please provide information on the time periods within which such petitions have been acted upon between 1975 and the present.

Answer:

The table below shows, for calendar years 1975 through 1988, the number of Defect petitions processed and the average number of days to action (grant or denial).

Calendar Year	Defect Petitions Received	Average Days to Action	Percent over 120 days	Longest Time
1975	6	122	67	128
1976	13	77	8	130
1977	18	122	72	160
1978	34	114	44	242
1979	18	97	44	169
1980	9	122	44	137
1981	13	224	69	549
1982	12	108	58	200
1983	18	135	61	307
1984	19	110	32	246
1985	26	60	15	204
1986	27	70	15	218
1987	29	102	31	237
1988	18	110	39	226

Rulemaking Petitions:

The agency has continued to take steps to expedite the handling of the 60-70 rulemaking petitions it receives each year. While we can not always grant or deny a petition within 120 days, we have been able to reduce our processing time as shown below. The reasons why we cannot always complete all petitions within 120 days include the following:

- petitions are often incomplete, resulting in the agency having to await responses to questions put to the petitioner
- petitions arrive at an erratic pace, often resulting in an overload of work in a particular program area
- the agency believes it is more meaningful to the public to accompany a grant of a petition with a Notice of Proposed Rulemaking (NPRM) published in the Federal Register. This compares with a policy in the mid and late 1970's wherein the agency granted petitions via a letter, but often did not issue an NPRM for several years. However, since it takes, on average, 50-60 days for an NPRM to be cleared once it leaves NHTSA, we can not always adequately review a petition within the remaining 60-70 days.

However, as shown below, we have been making significant progress in reducing our processing times.

Average Number of Months to Grant/Deny Petitions
By Year of Receipt

1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
10	13	10	14	11	16	13	8	10	10	9

As shown, processing time during President Carter's term averaged 12 months, while during the first 3 years of President Reagan's term the average was also 12 months. However, during the next 4 years we reduced the average processing time to 9 months -- a 25 percent improvement.

Another measure of improved efficiency concerns inconsequentiality petitions, wherein a manufacturer contends that a noncompliance with a safety standard is inconsequential as it relates to motor vehicle safety (these usually involve violations of the labelling requirements of our standards, particularly those for tires). Approximately 10-15 of these are received each year. As shown below, we have reduced the processing time experienced in the late 1970's by 70 percent -- from 10 to 3 months.

Time From Notice of Receipt to Grant/Denial Inconsequentiality Petitions by Year of Receipt

(in months)

1978	1979	1980	...	1985	1986	1987	1988
9	9	11		8	7	4	3

Finally, our handling of petitions can be measured by how many petitions we process each month. Because of incomplete records, we do not have data prior to 1981. Also, because of the subcommittees's interest, we have included only safety rulemaking petitions, eliminating inconsequentiality, fuel economy, theft, and consumer-related petitions As can be seen, we now (1987-88) process twice as many petitions per month as we did 6-8 years ago (1981-83).

Safety Petitions Completed Per Month

1981	1982	1983	1984	1985	1986	1987	1988
1.6	1.4	1.5	1.9	2.3	2.1	3.1	2.8

Average 1981-84 = 1.6
1985-88 = 2.6

We believe the best means to further improve our efficiency is to reduce the number of petitions received. Since about 80 percent of our petitions come from manufacturers or associations, which generally seek increased regulatory flexibility, eliminating the need for such petitions is a path we have chosen. We have established an internal work group to review our standards to ascertain whether they inadvertently impede new technology (a reason for many of our petitions) and we are about to issue two rulemakings which should reduce our future petition workload. The first would make our lighting standard more performance-oriented, and the second would address the new technology of head-up displays.

Although we do not process all rulemaking petitions within 120 days, we are striving to do so and believe we have made significant progress in the last few years.

Question 8:

NHTSA'S hearing testimony stated that the "New Car Assessment Program" currently provides information on frontal crashworthiness to consumers. Please describe how this program works and the nature of the information it provides to consumers.

Answer:

The New Car Assessment Program (NCAP) was initiated in 1979 in response to the requirements of Title II of the Motor Vehicle Information and Cost Savings Act. It was established as an experimental program in which vehicles are crashed at 35 mph into a fixed, rigid barrier to indicate relative levels of crash protection provided to occupants wearing safety belts.

Every new car sold in the United States must comply with the requirements of the Federal Motor Vehicle Safety Standards (FMVSS), including standard No. 208, "Occupant Crash Protection." The 35-mph NCAP crash test is 36 percent more violent than the 30-mph crash test required by several safety standards. The NCAP test is equivalent to a head-on collision between two identical vehicles, each moving at 35 mph, or one parked and the other moving at 70 mph. The crash test results are designed to indicate, for vehicles within the same size and weight class, relative levels of occupant protection and vehicle safety performance.

Initially, the NCAP tests included only passenger cars which were tested to the requirements of four Federal safety standards: Occupant Crash Protection (No. 208); Windshield Mounting (No. 212); Windshield Zone Intrusion (No. 219); and Fuel System Integrity (No. 301). Standard No. 301 requires both front and rear crash tests. About 25-30 new model cars are selected for testing each year to provide comparative data on frontal crashworthiness for consumers to use in their vehicle purchasing decisions when comparing vehicles of similar size and weight. Only one car of any make or model is purchased by the agency from existing dealer inventory for an NCAP test. This random sampling replicates the manner in which the average consumer purchases a car.

In 1982, rear crash testing to the requirements of FMVSS No. 301 was discontinued because all new cars were complying at 35 mph. For the same reason, testing to the requirements of FMVSS Nos. 212, 219 and 301 (frontal) was discontinued in 1987. In 1983, due to increased consumer interest, the agency began testing light trucks, multi-purpose passenger vehicles, and vans in NCAP. Beginning in 1987, at the request of Congress, the agency included retests of up to four vehicles which performed poorly in the NCAP tests of the preceding year. The latest addition to NCAP is the NHTSA-monitored Optional NCAP tests. These tests are requested by manufacturers for vehicles with improved occupant protection and which have been previously tested in NCAP.

NHTSA uses instrumented dummies, designed to represent an average adult male, in the NCAP tests. Each dummy is protected by a vehicle's standard occupant protection equipment, including manual safety belts, automatic belts and/or air bags. The head, chest, and upper legs of the dummies are equipped with instruments which monitor impact forces and accelerations. Test data from the head are used to calculate the head injury criterion (HIC), a measure of the potential for brain injury. The chest measurement in G's (a "G" is a unit of acceleration) is used as an indicator of the potential for chest injury. Forces on the upper legs (measured in pounds) are indicative of the potential for injury to the femurs (the thigh bones).

While NCAP represents current state-of-the-art in comparative crash testing, there are several reasons why it will continue to be an experimental program. It does not allow for side impacts, rear impacts, or rollovers. Only frontal crash tests are feasible at present. While frontal tests represent the most important type of crash, they cannot provide complete information on which to base overall crashworthiness ratings. In addition, the NCAP tests use only 50th percentile male dummies, provide data only on head and chest accelerations and femur loads, are run only at one test speed, and are only intended to simulate the equivalent of a frontal impact with an "identical" size and weight vehicle.

Although NCAP offers what we believe to be the best information currently available on crashworthiness, we are continually working to improve the quality of that information. In the fall of 1986, the agency completed the experimental Deformable Moving Barrier Program (DMB) test of 10 vehicles previously tested in NCAP. A technical report on the DMB program was completed in 1988. These tests demonstrated the feasibility of a repeatable test structure that could be used as a surrogate vehicle in vehicle-to-vehicle crash tests and that could assess the effects of vehicle mass differences and structural crashworthiness. In fiscal year 1990, the agency plans to conduct a 6-vehicle demonstration crash test program to highlight occupant protection in front and rear seating locations with different size dummies.

NCAP test results are disseminated to the public through agency press releases. Since 1979, the agency has issued 40 press releases covering 304 NCAP tests. The media coverage of NCAP has been very positive, with one very popular consumer magazine (Consumer Reports), highlighting the program annually. The agency's consumer Hotline and Office of Public and Consumer Affairs also disseminate NCAP results. Nearly 10,000 calls per year come over the Hotline seeking NCAP information. In addition, correspondence and telephone calls requiring specific information are handled personally by the program office responsible for NCAP.

The success of NCAP illustrates the power of the informed consumer in the marketplace and the response of vehicle manufacturers to the pressure of that power. The level of occupant protection in today's passenger vehicles is better than it has ever been.

Question 9:

Please list all research NHTSA has performed or obtained which relates to pedestrian safety, and vehicle design to decrease pedestrian injuries. Either summarize the results of that research or provide copies of reports. If research projects are underway but incomplete, please provide the status of those projects.

Answer:

The National Highway Traffic Safety Administration (NHTSA) has been conducting research and rulemaking activities aimed at reducing the severity of injuries sustained by pedestrian accident victims for more than ten years. Over the years research projects have included full-scale accident simulations using dummies and cadavers as pedestrian surrogates, component tests designed to reproduce a portion of the collision event, and computer-based simulations of pedestrian accidents. Also, several special pedestrian accident studies have been completed, automated, and analyzed. The accident studies used to develop pedestrian accident and injury statistics include the Pedestrian Injury Causation Study (PICS), the National Accident Sampling System (NASS), the Fatal Accident Reporting System (FARS), and the National Crash Severity Study (NCSS).

Accident data analysis indicates that the head, thorax, and legs (knee to foot) are the areas of a pedestrian's body most often injured in a pedestrian/motor vehicle collision. The vehicle structural components that contact pedestrians most often during a collision are the bumper, grill, hood leading edge, hood, fenders, and windshield.

Based on accident data analyses, NHTSA has research projects underway aimed at determining the feasibility of rulemaking to modify the front structure of passenger cars to significantly reduce the severity of head, thorax, and leg injuries resulting from direct vehicle impact.

The general approach to NHTSA's pedestrian impact protection research has the following major tasks:

- o Conduct full-scale accident simulations using cadavers as pedestrian surrogates and/or conduct a series of in-depth investigations of real-world accidents to obtain information concerning kinematics, impact forces and accelerations, injury mechanisms, and injury severity;
- O Develop devices to simulate pedestrian impact response and a test procedure to simulate the pedestrian/vehicle collision event or a portion of it, e.g., hood impact;
- o Utilize the test device and procedures in a series of impact tests with recent model production vehicles to determine their impact response characteristics (injury severity potential);

- Utilize impact test data to identify vehicles with relatively low levels of injury severity potential and use the design features of those vehicles to develop countermeasures that can be applied to all or most vehicles;
- Design, fabricate, and test the countermeasure concepts to demonstrate their ability to reduce impact injury severity and to demonstrate that the designs can be applied to all or most vehicles in a manner that is feasible, practicable, and cost effective; and
- Develop rulemaking papers that document countermeasures, injury reduction and other benefits, compliance test procedures, costs and other effects on the environment, vehicle operation and function.

The NHTSA pedestrian research and rulemaking program is divided into three projects -- head, thorax, and leg impact protection.

The head impact protection project is further divided into short and long term projects. The short term project addresses head impacts on areas of the vehicle frontal surface where sufficient underneath clearance exists to provide adequate head impact protection with either no vehicle modification or only modification of the hood itself. Research in this area is essentially complete, and a report was published earlier this year.

The long-term pedestrian head impact protection project will address the remainder of the vehicle hood/fender surface area within the specified head impact zone. Currently, impacts in these areas result in high levels of head injury severity potential because of the stiffness of the surface structure (fender top, hood/fender seam, cowl), or the close proximity of drive-line or suspension components directly beneath the panel surface. Research addressing head injury severity countermeasures for these areas and vehicle components is underway and is currently scheduled to be completed within two years.

The thorax protection project is focusing on child accident victims (12 years of age or less). The development of a child thorax lateral impact response simulation device has been completed. A series of accident reconstruction tests designed to develop a relationship between child thorax injury, as documented in the accident case files, and impact test device measured responses has also been recently completed. The child thorax accident reconstruction tests did not result in a strong correlation between real-world pedestrian injury and parameters measured by the impact simulation device during testing. Currently, the agency is in the process of evaluating the child thorax research options including: re-examining the child thorax impact test device with the intent of improving it; conducting additional accident reconstruction tests with the current device; accepting injury criteria derived from completed tests; and proceeding to the production vehicle testing phase of the research project. This evaluation is scheduled to be completed by August, 1989.

The pedestrian leg impact protection project has not been actively pursued in the past year because the head and thorax projects have been given a higher priority. There are no plans to continue the research/rulemaking activities for pedestrian leg protection at this time since the other two major projects are utilizing most of the agency's pedestrian protection resources. A Notice of Proposed Rulemaking on Pedestrian Impact Protection was published in the Federal Register on January 22, 1981, addressing pedestrian leg protection. The proposal would require vehicle manufacturers to install front bumper systems on passenger cars that are much softer than those currently in production.

Responses to the notice noted that, while NHTSA demonstrated effectiveness for the vehicle tested, styling and aerodynamic considerations had made the now contemporary vehicle frontal profile significantly different from the test vehicle. The contemporary hood edge is now between 4 and 6 inches lower and 2 to 4 inches further rearward than the one on the test vehicle, and this may influence the safety performance of the modified bumper. Subsequent analysis indeed showed this to be true, and the research focus changed from reducing lower limb injuries to reducing head and chest injuries resulting from impacts with the vehicle.

A summary of the pedestrian head protection program may be found in the paper, "NHTSA's Advanced Pedestrian Protection Program," by T. MacLaughlin, T. Hoyt, and S. Chu. A summary of the pedestrian chest protection program may be found in the paper, "Experimental Study of Thoracic Injury in Child Pedestrians," by M. Hamilton. A list of recent research papers on pedestrian protection follows. Work in this area is continuing.

In addition to its research on ways to modify the vehicle to protect pedestrians, the agency has conducted substantial research into accident causation -- how errors by drivers and pedestrians interact with environmental factors to cause accidents. Much of NHTSA's work has been done in conjunction with the Federal Highway Administration, with which it shares responsibility for pedestrian safety programs under the Highway Safety Act.

The agency has been able to identify the major accident types and to develop specific solutions for each type. In some cases, such as the dart-out, which is the major child pedestrian accident, countermeasures such as the safe street crossing program for K-3 classrooms and a number of films and safety messages have succeeded in reducing the number of dart-out accidents in the tested areas. Programs have also been developed that focus on adult pedestrians, with particular emphasis in our current research on the elderly pedestrian.

Pedestrian Program

Publications List

1. T. MacLaughlin, T. Hoyt, and S. Chu. "NHTSA's Advanced Pedestrian Protection Program." Presented at the 11th International Technical Conference on Experimental Safety Vehicles, Washington, D.C., May 1987.

2. J. Kessler. "Development of Countermeasures to Reduce Pedestrian Head Injury." Presented at the 11th International Technical Conference on Experimental Safety Vehicles, Washington, D.C., May 1987.

3. M. Hamilton. "Experimental Study of Thoracic Injury Child Pedestrians." Presented at the 11th International Technical Conference on Experimental Safety Vehicles, Washington, D.C., May 1987.

4. T. Hoyt, T. MacLaughlin, and J. Kessler. "Experimental Pedestrian Accident Reconstructions -- Head Impacts." NHTSA Final Report DOT-HS-807 288, June 1988.

5. H. Pritz. "Experimental Investigation of Pedestrian Head Impacts on Hoods and Fenders of Production Vehicles." NHTSA, SAE International Congress & Exposition, Detroit, Michigan, SAE Paper 830055, February 1983.

6. S. Enouen. "The Development of Experimental Head Impact Procedures for Simulating Pedestrian Head Injuries." 30th Stapp Car Crash Conference, SAE Paper 861889, San Diego, California, October 1986.

7. M. Hamilton, H. Chen, and D. Guenther. "Adult to Child Scaling and Normalizing of Lateral Thoracic Impact Data." 30th Stapp Car Crash Conference, SAE Paper 861883, San Diego, California, October 1986.

Question 10:

Please list each instance, between 1981 and the present, in which a manufacturer has been requested to recall a vehicle or part and has refused to do so, and in which NHTSA has closed the case without additional enforcement action. Please provide information, for each instance, on the reasons why the case was closed without enforcement action. Please provide information to permit a comparison between the numbers of such cases from 1981 to the present and the numbers of such cases from 1971 to 1980.

Answer:

Recall Request letters are not agency findings of a safety related defect. They are sent in an attempt to secure an early voluntary recall when the investigation provides reasonable evidence of a safety-related defect, but is yet insufficient to support an agency determination. They are ordinarily sent at the end of the Engineering Analysis phase of the process before opening a Formal Safety Defect Investigation, in which we continue the investigation in preparation for possible court action. Since we have not concluded our investigation when the requests are sent, we expect that we would not go forward in some instances when the manufacturer's response caused us to conclude that a further expenditure of resources would not likely result in a determination of a defect. By using this and other techniques, we have been able to reduce the time between opening investigations until a voluntary recall is obtained from about 11 months in the late 1970's to about 9 months in 1988.

The following table shows, for calendar years 1979 through 1988, the number of safety-related defect "recall request" letters sent to manufacturers. The "recall request" process was begun in 1979. Thus, we are unable to provide a comparison between the years 1981 to present and 1971 to 1980.

Calendar Year	Recall Request Letters sent	Case closed w/o action
1979	2	2
1980	3	3
1981	6	2
1982	5	1
1983	11	2
1984	12	3
1985	21	7
1986	13	7
1987	11	1
1988	14	0

Following are the reasons why the investigations were closed without enforcement action:

EA79-104: International Harvester (IHC), 1979 S Series Bus Chassis, Alleged Improper Control Pedal Location (left of steering column).

> IHC developed a procedure to move the pedals to the right and offered it to all owners. Only about 20 percent requested the change. IHC also reported that over 90,000,000 other cars had been produced in the U.S. and Canada with the pedals located left of the steering column. A review at that time of over 10 years of safety recalls revealed no basis for conciuding that a safety problem existed for the vehicles.

EA79-057: General Motors (GM), 1975-1978 Cadillacs, Alleged Headlight Adjuster Failures.

> There were no accidents or injuries reported to GM or NHTSA as a result of the alleged failures. Failure of a headlight adjuster on a vehicle may result in some misalignment of a headlight, but the hazards would be minimal. Therefore, we could not demonstrate the existence of a safety related defect. GM redesigned the adjuster assembly to preclude future related failures.

EA79-065: Ford Motor Co. (Ford), 1979-1980 Mustang/Capri, Uncovered Drain Hole in Trunk Creating Possible CO Hazzard.

> According to Ford the purpose of the hole is to drain paint during vehicle manufacture. Based on its testing, Ford reported that no significant levels of CO in the passenger compartment were found under the most severe test conditions and with the hole uncovered.

EA79-079: Ford Motor Co. (Ford), 1974-1979 Ford Vehicles, Alleged Failure of Hydroboost Resulting in Increased Steering/Braking Effort.

> The alleged failures were determined to occur early in the life of the vehicle and most vehicles had been fixed.

EA80-009: General Motors (GM), 1976-1978 Chevette, Alleged Wheel Rim/Tire Separation.

> The complaints reported involved a slow loss of air. Only the 1976 models had an identifiable rim problem which had been corrected four years earlier in production.

EA80-112: (C82-018), Chrysler Corp., 1979-1980 Omni/Horizon, Alleged Failure of Hatchback Door Support Mechanism.

Beginning in early model year 1980, Chrysler changed the design of the strut end piece to a positive metal clevis and bolt. Chrysler also issued a service bulletin to its dealers on February 4, 1980, specifying procedures for correction of the strut disengagement problem on the subject vehicles. The majority of reported injuries were minor.

EA80-085: General Motors (GM), 1978-1979 Cadillac Seville and Buick Riviera, Alleged Wire Wheel Failures.

Failures existed only on those vehicles equipped with Dunlop wire wheels. Failure was gradual and created noise, thereby warning the operator of the condition. Most reports of tire air loss involved slow leakage. Many of the owners replaced their wheels with conventional pressed steel wheels.

EA81-010K: (C82-019), Ford Motor Co. (Ford), 1979-1980 Mustang/Capri, Alleged Failure of Hatchback Door Support Mechanism.

Ford redesigned the part for model year 1981, and provided 1979-1980 vehicle owners with a metal clip to prevent the support piece from disengaging. After this was initiated, complaints diminished significantly.

EA82-017: Rocket, RB II Challenger wheels.

Fractures occurred during laboratory testing. No identifiable defect trend was discovered in the field.

EA82-020: Mr. Gasket, Baha Spoke and Star wheels.

Defective wheels were produced by Weldwheel, but Weldwheel went bankrupt and sold out to a company called Mr. Gasket. Mr Gasket did not manufacture any of the alleged defective wheels. NHTSA's Office of Chief Counsel determined that Mr. Gasket could not be held responsible for the defective wheels.

EA82-028: Ford, 1981-1982 Escort Fires.

No unique defect was found that explained the cause of the fires. The numerous fuel sources and ignition sources identified during this investigation appeared to be random occurrences. A similar investigation, EA87-005, was opened on December 1, 1987 covering 1984-86 Escorts.

EA82-040: Honda, 1979-81 Accord, Non-retraction of Safety Belts.

Honda initiated a lifetime safety belt warranty with free replacement. Complaints dropped substantially and a safety related defect could not be demonstrated.

EA83-014: Chrysler, 1978-1982/all with 1.7L & 2.2L Engine. Alleged failure of Carburetor Isolater causing stalling.

Additional information provided by the manufacturer showed that partial and total failure of the isolater would not cause stalling, but would only decrease available power at lower RPM's.

EA83-018: Peugeot, 1980-1982 Peugeot 504 and 505 Power Brake Booster Seal.

Additional investigation showed that the failure was gradual and offered the user noticable warning symptoms before complete failure occurred.

EA84-006: General Motors (GM), 1978-82 rear wheel drive "A" Body cars upper control arm bolt fracture.

The bolt failure was caused by insufficient tightening of the bolts. Testing and field reports demonstrated that failure did not cause loss of vehicle control. Thus, the Agency would not demonstrate the existence of a safety related defect

EA84-019: General Motors 1982 Camaro Safety belts alleged failures.

The investigation was based on potential failures of the rear lap belts during a heavy load test. Further testing revealed that actual in service loads were much lower than the test loads and the anchor plate used could swivel and align with the load. During the one year the investigation was open, there were no reported failures.

EA84-028: General Motors, 1981-1982 Chevette w/Diesel Engine Rear Brake Lockup.

The decision in the X-Body rear brake lockup investigation indicated that further commitment of resources to investigate this similar defect was not warranted.

EA85-013: Custom and Commercial Wheel Inc., 14 inch dual wheel.

Wheels were found not to be defective. Failures caused by brake drum set screw which must be removed before mounting wheel to vehicle. Custom and Commercial informed all its customers that the set screw must be removed before mounting wheel.

EA85-018: General Motors, 1981-84 Chevrolet and Pontiac T1000 crankshaft pulley bolts.

General Motors informed the agency that it would conduct a service recall to replace the crankshaft pulley bolts on approximately 185,000 vehicles. The investigation was closed because this would correct the problem and there appeared to be no unreasonable safety risk. Out of 2.7 million vehicles under investigation, there were only 6 accidents.

EA85-036: Freightliner Corporation, 1977-1983 Freightliner Tractor Trucks, Broken Spring Hangers.

Information provided by the manufacturer showed that the problem of broken spring hangers could exist only if the owner ignored repeatedly published maintenance requirements.

EA85-041: General Motors, 1985 Model year vehicles equipped with the Seat Back Recliner.

Information provided indicated that most of the identified failure modes were associated with incremental and gradual movement of the seat back. There was ample warning of failure and no significant safety problem.

EA85-044: Western Trailer, inner cap nut when used on aluminum wheels.

Cap nuts were routinely replaced with higher strength nuts during regular maintenance of wheels and tires. Records of wheels and nut replacements were not kept. The investigation was closed because there was inadequate evidence to demonstrate that failed inner cap nuts were used on aluminum wheels.

EA86-002: Toyota, 1982-83 Celica safety belt retractor.

Toyota conducted a service recall to improve safety belt retraction. Complaints thereafter were insignificant.

EA86-007: General Motors, 1984-85 Chevrolet Camaro and Monte Carlo rear axle failures.

General Motors provided additional information showing that the problem occurs under atypical driving conditions and that it occurs only at low speeds and only in vehicles equipped with drum brakes. GM discontinued the Eaton locking differential and the service repair involves replacing the differential with a limited slip design.

EA86-025: General Motors (GM), 1985 model year vehicle windshield wiper problems.

Information provided indicated that the failures only occurred early in the life of the vehicle, and that product improvements and repairs already conducted likely fixed all problems.

PE86-054: Bowman Aftermarket School Bus rebuilt brakeshoes 15 inch drum brakes.

The manufacturer claimed that a quality control error took place. It appears that all of the defective shoes were installed on school buses. All known suspect vehicles had been inspected and the defective brake shoes replaced with another manufacturer's product.

PE86-059: Sealco Air Control Valve, Inc. Treadle valve #110 400, Air brake pressure loss allegedly due to leaking treadle valve seals.

The manufacturer demonstrated that the brake system problem on which this investigation was based was unlike and not related to an earlier recall of a different system. Failure of the seals would affect only the one supply tank (there are two) during braking and that the second system would lose pressure only after the treadle was released upon stopping the vehicle. At this time, the spring brakes would lock on, making the vehicle difficult to move. The manufacturer replaced the valves in service and replaced the dealers' inventories.

EA88-002: Delta Truck Body Company, Defective Draw Bars.

The population involved 30 custom built "double" trailers. The drawbars for these trailers were built by another subcontractor and provided to Delta by the purchaser. Delta was able to show that they did not have manufacturing responsibility for the defective drawbars. The purchaser went out of business. The lessor of the trailers either repaired them himself or put them out of service.

Question 11:

Please provide the number of defect investigations opened, and the number of recalls obtained (voluntarily and involuntarily), for each year from 1971 to the present. Please include in your answer any additional information necessary to permit an accurate comparison of NHTSA's activities in these areas over the years involved.

Answer:

Table 1 and Figure 1 show, for calendar years 1971 through 1988, the total number of defect investigations opened. In 1988, 167 investigations were opened, the most since 1973 (182). The average number of investigations opened between 1981 and 1988 (inclusive) is 106. The average number opened between 1971 and 1980 (inclusive) is 101. The average since 1982 is 119. The average during the late 1970s was 124. A 1984 GAO audit report said our procedures for identifying possible defects and for opening investigations was reasonable.

Table 2 and Figure 2 show the number of voluntary and involuntary (influenced by NHTSA investigations) vehicle defect recall campaigns. Defect vehicle recalls averaged 221 per year in the early 1970s, 179 per year in the late 1970s, and 147 per year in the 1980s. However, the number of defect vehicle recalls has been rising and averaged 171 in 1987 and 1988. The number of recalls influenced by NHTSA investigations over the years has averaged 26 per year. Since 1982 the average has been 24. For the period 1971 through 1980, 14.6 percent of vehicle defect campaigns were influenced by NHTSA actions. For the period 1981 through 1988, the corresponding number is 15.5 percent.

Table 1 - ODI Investigation Opened

Year	Total No. of Investigations Opened
1971	66
1972	99
1973	182
1974	98
1975	34
1976	34
1977	128
1978	139
1979	127
1980	103
1981	47
1982	93
1983	140
1984	98
1985	113
1986	107
1987	90
1988	167

ODI INVESTIGATION STATISTICS
Total Number of Investigations Opened

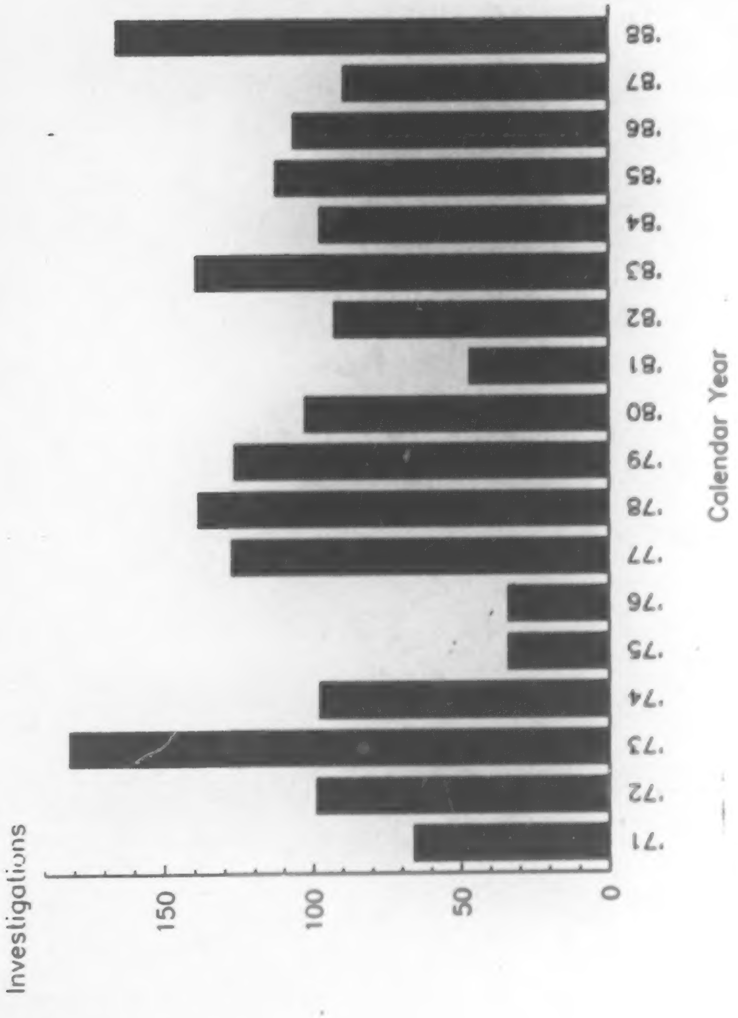
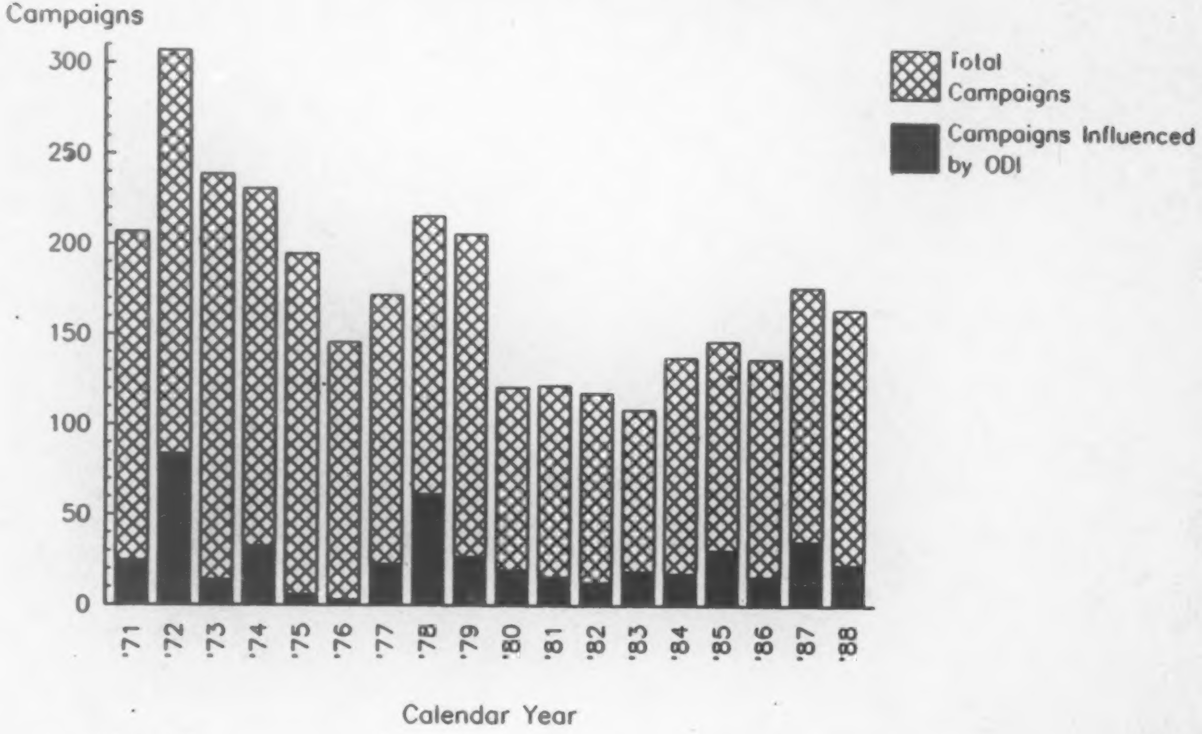


Figure 1

Table 2 - Number of ODI Vehicle Defect Recall Campaigns

Year	Total Campaigns	Campaigns Influenced by ODI
1971	207	25
1972	307	84
1973	239	14
1974	231	33
1975	195	6
1976	146	3
1977	172	23
1978	216	62
1979	206	27
1980	121	20
1981	122	16
1982	118	13
1983	109	19
1984	138	18
1985	147	31
1986	137	16
1987	177	36
1988	165	23



ODI VEHICLE RECALL STATISTICS
Number of Safety Campaigns Conducted

Figure 2

Question 12:

Please provide information on any efforts currently underway at NHTSA to prevent head injuries in side impact crashes. Include in your answer any work being done to reduce injuries by changes in the "A" pillar of vehicles.

Answer:

For several years, the agency has been concerned about head injuries during side impacts. After the head injury problem was better quantified by the agency in 1985, the agency initiated research to support rulemaking on head impact protection during side crashes. From 1986 to 1988, the agency has concentrated its efforts on research related to this safety problem. Major accomplishments include the following:

- Development of Headform Impactor.
- Development of Test Procedures/Speeds.
- Evaluation of Foam Padding Countermeasures.
- Establishment of Baseline Vehicle Performance Data.
- Evaluation of improved side window glazing.
- Preparation of Rulemaking Support Papers.

Any rulemaking addressing head protection during side impact crashes would almost certainly cover A-pillar requirements.

On August 19, 1988, the agency published two Advanced Notices of Proposed Rulemaking (ANPRM's) for side impact protection. Head impact protection is one of the safety problems that was addressed in these ANPRM's. By January 1989, approximately 55 parties had responded to these ANPRM's. In February 1989, two reports summarizing the public comments on the ANPRM's were prepared and submitted to the public docket. Currently, the agency is analyzing these comments and proposing additional research tasks. A list of recent publications on the subject of head impact protection follows.

Upper Interior Head Protection Program:

Publications List

1. M.W. Monk, H.C. Gabler, and L.K. Sullivan. "Subsystem Testing for Head To Upper Interior Safety." Presented at the 11th International Technical Conference on Experimental Safety Vehicles. Washington, D.C., May 1987.

2. M.W. Monk and L.K Sullivan. "Energy Absorption Material Selection Methodology for Head/A-Pillar." Presented at the 30th Stapp Car Crash Conference. SAE paper number 861887. October 1986.

3. D.T. Willke and M.W. Monk. "Side Interior Stiffness Measurement". Presented at the 30th Stapp Car Crash Conference. SAE paper number 861880. October 1986.

4. R.A. Saul, M. Farson, and D.A. Guenther. "Development of a Component Level Head Impact Test Device." Presented at the 30th Stapp Car Crash Conference. SAE paper number 861889. October 1986.

Question 13:

Please provide information on any work being done at NHTSA to evaluate the sufficiency of current roof crush standards. Include in your answer your opinion on the necessity for roof crush standards for multipurpose vehicles. If you believe that vehicle manufacturers currently meet passenger car standards for their multipurpose vehicles, state whether a standard would nevertheless be beneficial. If not, state why a standard would not be necessary in order to insure that manufacturers continue to meet current standards in future years.

Answer:

On April 13, 1987 the agency sent letters to several light truck manufacturers, which requested information on the extent of compliance of their light trucks with passenger car test requirements of FMVSS No. 216, "Roof Crush Resistance". The following manufacturers indicated compliance with FMVSS No. 216 for their light trucks, including pickups, vans, and multipurpose passenger vehicles, either by actual testing or engineering judgement: American Motors, Chrysler Motors, Ford, General Motors (except for the walk-in "P" van), Nissan, Subaru, Suzuki, Toyota, and Volkswagen. During 1988 NHTSA conducted its own tests to verify the manufacturers' claims. The agency tested five light truck vehicles and found that all five complied with the roof crush requirements of FMVSS 216.

On December 21, 1988, the agency sent a second letter to the light truck manufacturers listed above, which requested updated information on light truck voluntary compliance, and also asked, where available, for the results of any testing that was done under FMVSS No. 216 for light trucks. (A sample copy of this letter is attached.) These manufacturers again indicated compliance of their vehicles with FMVSS No. 216, with the exception of General Motors' "P" van.

The agency has taken the view that if the manufacturers produced vehicles which voluntarily complied with a safety standard, then merely extending the requirements of that standard to the vehicles already voluntarily complying would not produce additional safety benefits.

Secretary Skinner has indicated that he will continue to encourage voluntary safety initiatives by manufacturers, but will not hesitate to proceed with rulemaking where necessary. However, the new Administration has not had the opportunity to review the specific issue of roof crush or to decide on a course of action relative to the extension of Federal Motor Vehicle Safety Standard No. 216 to light trucks.

Question No. 14:

NHTSA's written hearing testimony states, at p. 6, that the time frames for rulemaking set out in S. 673 ". . . are in conflict with the statutory criteria for rulemaking under the Vehicle Safety Act . . . . " Please explain in detail how these statutory time limits conflict with the Vehicle Safety Act, and cite the provisions of the Vehicle Safety Act to which you refer.

Answer:

In responding to this question, we want to be clear that we oppose the rulemaking actions specified in S. 673 largely on procedural grounds. Ten of the proposed actions are already in rulemaking at various stages or under serious review through research and analysis, and a few are nearing completion. We nonetheless oppose the legislated deadlines, because in many cases they may compromise the safety improvements they are designed to achieve.

The criteria governing the issuance of standards under the Vehicle Safety Act are set forth in subsections 103(a) and (f) of the Act. Subsection 103(a) provides that each standard "shall be practicable, shall meet the need for motor vehicle safety, and shall be stated in objective terms." Subsection 103(f) provides that the Secretary shall

> "(1) consider relevant available motor vehicle safety data, including the results of research, development, testing and evaluation activities conducted pursuant to this Act;
>
> * * *
>
> "(3) consider whether any such proposed standard is reasonable, practicable and appropriate for the particular type of motor vehicle or item of motor vehicle equipment for which it is prescribed; and
>
> "(4) consider the extent to which such standards will contribute to carrying out the purposes of this Act."

The process of promulgating a motor vehicle safety standard is technically complex and often controversial as evidenced by the frequency of legal challenges to the standards. Data developed by the agency in support of a rule may be disputed by others. Other data may point in contrary directions, and may require further research on the agency's part. Proposed rules may prove to have side effects that affect other aspects of safety in unexpected ways. The courts have repeatedly shown they will review NHTSA's rulemaking activity carefully, and they have struck down some important standards (208 in 1972, 121 in 1978) because of insufficient effort by NHTSA to meet all the statutory criteria.

Given this complexity, a fixed time period for the issuance of a final rule can present the agency with a Hobson's choice: either it meets the deadline, and risks a court's vacation of the standard for failure to meet the substantive criteria, or it delays issuance of a final rule in order to meet the substantive criteria, and risks having its action mandated by a court. The likelihood of this dilemma is high in areas such as side impact protection, where the comments to the proposed rule disclose significant technical disagreements.

Thus, even though the agency has already begun rulemaking actions on most of the subjects addressed in S. 673, and intends to proceed with these actions, it anticipates that fixed deadlines for these actions may conflict with the statutory criteria of the Act.

Senator BRYAN. Thank you very much, Mr. Felrice.

As I indicated in my opening statement, I think the agency has made some progress. But my concern is as to the timeliness. Now, you have indicated your opposition, which I take it to be longstanding with the agency, to a prescriptive time period. We have proposed a year as far as the rulemaking process.

If the information that I have been provided is accurate, the last promulgated side impact standard was enunciated in 1970. Then a new rulemaking began in 1979 that was later terminated.

I think you would have to concede that all good work should come to some type of conclusion or resolution. What is wrong with one year? And if not one year, 18 months, two years? Or are you just opposed to it in principle?

Mr. FELRICE. I share your view, Mr. Chairman, that all good things should come to an end. And it is very frustrating for those of us in the agency and those outside and those in the Congress watching the pace or the lack of pace of progress on these issues.

But they are very complex technical and scientific issues that really do not lend themselves to very easy resolution. For example, on the side impact rulemaking, some of the comments that we received to our proposal from last year suggest that not only will we not get the benefits that we predicted with that proposal, but indeed we may end up with more injuries because our injury criteria were not scientifically developed, and if the manufacturers have to comply with such a standard they might have padding that was too stiff and would cause injuries at lower speeds than we are testing for.

That gives us serious concern; we do not know that the manufacturers are right. They provided backup for their conclusion, and we have to investigate further.

Sometimes, as in this case, an investigation results in additional research, as is going on right now. A prescriptive time frame limits that research. And also, we are not always able to predict how much, if any, research we might have to do.

So it is really on general principles that we oppose time frames in legislation.

Senator BRYAN. You would oppose any time limit at all, then? Am I correct in that?

Mr. FELRICE. Yes, sir.

Senator **Bryan**. Is that something—I recognize that we are in a transition phase right now and that was the position of the previous Administration. Are you telling us in your opposition that this is just something that has continued over, or that indeed the new Administration has taken a look at it, made an individual assessment, and has decided to continue it?

Mr. **Felrice**. I think to the extent that my testimony was approved by the Administration, yes, that is the opinion of the new Administration also.

Senator **Bryan**. What about the five mile per hour bumper standard? Do not a good percentage of the automobiles that are being manufactured today meet that standard?

Mr. **Felrice**. There really seem to be two five mile per hour standards. The old standard that the agency had promulgated required that in a five mile per hour crash that there should be no damage to the sheet metal of the vehicle and also no more than a very minimal amount of damage to the bumper itself.

Many manufacturers comply with the first of those provisions at five mile per hour, but they in essence sacrifice the bumper.

Our position on the five mile per hour bumper is that we understand and agree that a bumper that only meets the first of those two criteria or a bumper that does not meet any five mile per hour criteria will allow the vehicle to be damaged more extensively than would a five mile per hour bumper. But what many of the proponents of the five mile per hour bumper do not present are the facts related to the frequencies of such collisions.

When we did the rulemaking, we estimated that about two-thirds of all the crashes under five mile per hour also occurred under 2½ miles per hour, and those are still fully protected by our standard.

The crashes that would occur between 2½ and five miles per hour we estimated would only occur about once every 40 car-years. So although a bumper is damaged more in a five mile per hour crash if it only meets a 2½ mile per hour criteria, the likelihood of that happening is very rare. Everyone would pay for the higher protection, but few people would actually benefit from that protection.

When we considered the frequency of such crashes and the added cost of the more protective bumpers, which we did in our rulemaking and which we believe the statute requires us to do, we said that the five mile per hour bumper would not save the average consumer any money.

Senator **Bryan**. What was the cost? What did your data develop in terms of the cost for developing a five mile per hour bumper resistance standard?

Mr. **Felrice**. I think in the rulemaking we estimated that going from five to 2½ would result in $65 more dollars in damage to the average vehicle, but would save the consumer $93 in higher purchase and fuel costs for the more protective bumpers.

Senator **Bryan**. You are saying it would cost $93 more to the consumer for the industry to have that type of a standard on a vehicle sold in the general market? Is that what the testimony is?

Mr. **Felrice**. Not just for the industry, but for the consumers also, sir. There are fuel costs involved that apply to the consumer and not the manufacturer.

Senator BRYAN. So that $93 is not just the manufacturing cost, but computing in the additional weight and what that would do to fuel efficiency and all that sort of thing?

Mr. FELRICE. Correct.

Senator BRYAN. And there was not a corresponding offset in terms of a potential benefit to the consumer in terms of insurance premium offset?

Mr. FELRICE. There was an offset, but it was not as large as the increased cost to the consumer.

Senator BRYAN. What was that offset, based upon your record?

Mr. FELRICE. That offset I believe was $65. But it did not offset the full $93 in higher purchase and operating costs to the consumer.

Senator BRYAN. Are you talking about an annual offset or is that projected over the life of the vehicle or the ownership of the vehicle, or where did you get the $65 from?

Mr. FELRICE. It would be over the life of the vehicle. And again, it is for the average vehicle.

Senator BRYAN. And again, how long does the typical automobile purchaser own a vehicle these days?

Mr. FELRICE. The average car lasts about ten years.

Senator BRYAN. About ten years. So you are saying that you would only save about, what, six dollars and a half a year?

Mr. FELRICE. Correct.

Senator BRYAN. Senator Danforth.

Senator DANFORTH. Is it Mr. "FEL-REESE," "FEL-REES-EE"?

Mr. FELRICE. "FEL-RICE."

Senator DANFORTH. "FEL-RICE."

Mr. Felrice, you have not testified before the Committee before, have you?

Mr. FELRICE. I have, but not by myself.

Senator DANFORTH. I just want to assure you that as far as I know I do not know you and I have nothing personal against you.

Mr. FELRICE. I do not think I am going to like this.

Senator DANFORTH. I do not mean to be unkind to you. I think that the National Highway Traffic Safety Administration is the comic book example of a Federal regulatory agency that does nothing. And I think that the position that you have taken—and I am very concerned if this is in fact the position of the Administration—that no time limits should be imposed on the Administration by Congress is so typical of NHTSA as we have known it over the last number of years. Their position is: Look, it takes 70 or 80 years for an oak tree to grow, so why should it not take that much time to promulgate a rule?

And the question of side impact protection. I mean, to say that it is just too hard to do, to come up with a ruling in only ten years or so, it just is too taxing to do it, I do not accept that at all.

And then there is the issue of multipurpose vehicles. My understanding of NHTSA's position is that it has done nothing except for the head restraints. Is that right?

Mr. FELRICE. We believe we have done a lot in that area. Within the last two years alone, we have issued two final rules to extend the steering column standard to more multipurpose vehicles than previously existed. We extended the power window standard, which has as its goal to reduce injuries to children, to pickup trucks, which did not exist before.

We issued a dynamic testing requirement for all light trucks that takes effect within the next couple of years. And we have initiated——

Senator Danforth. Nothing on passive restraints.

Mr. Felrice. Not yet, but that is under serious consideration.

Senator Danforth. Nothing even on the high-mounted rear lights, right?

Mr. Felrice. We just completed a research project in December of last year. We had a one-year research project in which we outfitted pickup trucks and vans with the high-mounted stop lamp to see if we could get the same benefits that we believe accrue to passenger cars.

Senator Danforth. That was a one-year project to find out whether a light that is mounted, whatever, three or four feet over the road in a passenger car would have the same effect in a minivan?

Mr. Felrice. Yes. Senator, there are two reasons why we think the high-mounted stop lamp worked in passenger cars: First, because it was higher than the other stop lamps. But in pickup trucks and vans the brake lights are higher already than they are in passenger cars. So we did not know if that benefit would carry over.

Second of all, the light is mounted in the center of the vehicle. That is more difficult to do with these other types of vehicles, particularly for a van with solid doors. There is no place to mount the light right in between those doors.

And we think there were benefits in passenger cars because the following driver tends to look through the rear windshield of the vehicle in front of him and that high-mounted stop lamp now would be in their field of view. But with pickups and vans, if most people are like me they try to look around them because they are too high and you cannot see through them.

So there was not any initial scientific evidence that high-mounted stop lamps would be effective for those types of vehicles, and the research was intended to see exactly what happened.

We got the research report about a month ago and it is being analyzed in the agency. I would anticipate a rulemaking decision within the next few months.

Senator Danforth. Within a year or so you will get the analysis finished?

Mr. Felrice. Well, the report was circulated for comments and the different offices in the agency are now resolving those comments. I hope the new Administrator would be able to announce his decision on that within the next few months.

Senator Danforth. Roof crush resistance, what have you done on that?

Mr. Felrice. That is one where we obtained information from the manufacturers as to whether their vehicles complied or not. In addition, we did our own testing last year to try to verify the manufacturers' statements.

The companies told us that essentially all their vehicles already comply with that standard, and in the previous Administration the philosophy was, if there is voluntary compliance there is really no need to issue a regulation because you do not gain any safety benefits.

Senator **Danforth**. So you are saying there is no problem with the roofs of minivans or light trucks?

Mr. **Felrice**. As far as we can tell, if we extended the passenger car standard to those vehicles they would all already comply, and there would not be therefore an improvement in safety by applying that regulation.

Senator **Danforth**. We have standards then for automobiles, but not for minivans?

Mr. **Felrice**. That is what exists today, yes.

Senator **Danforth**. And that is the way it should remain?

Mr. **Felrice**. Well, we have not decided that yet. And I think that also will be up to the new Administrator when he gets on board. But we have not ignored it.

Senator **Danforth**. On the decorative bumpers, NHTSA's position is still that it favors decorative bumpers?

Mr. **Felrice**. As the statute is written, Senator Danforth, we must issue a bumper standard which maximizes net consumer benefits, not one that is at the highest possible impact speed for protection. And as I have said——

Senator **Danforth**. Your testimony as I understand it is that the only value of going from a 2½ mile bumper to a five mile bumper is for accidents that occur between 2½ and five miles an hour?

Mr. **Felrice**. Well, there is certainly some spillover at higher speeds.

Senator **Danforth**. That is a ridiculous position you have taken, is it not?

Mr. **Felrice**. Well, I realize it sounds silly.

Senator **Danforth**. Yes.

Mr. **Felrice**. But at the same time, we do not think it is. Every study on this subject has shown that there is very little, if any, difference in a bumper that protects at 2½ versus five. As the Chairman mentioned, we are talking a few dollars——

Senator **Danforth**. I cannot wait to hear the other witnesses on this, because I think that that would be disputed, that every study has shown that there is virtually no difference.

Mr. **Felrice**. I think some of the other witnesses will argue that there are large amounts of damage in cars produced today at five mile per hour crashes, and we do not argue that. But the question is to get a more protective bumper the consumer must pay for it, and our studies which have looked at that issue show that what they pay for it does not equal the protection they are getting, on average.

Senator **Danforth**. My memory from the past hearings—and we have had hearings and we have had films and so on on this shown to the Committee in the past—is that in fact the difference in cost is paid for very quickly by lower insurance costs; and the fuel increase, which was the main argument for the lighter bumpers, is almost nothing over the period of the life of a car.

Would you argue that the fuel saving is insignificant for a lighter bumper? That is no reason to go to a lighter bumper, is it?

Mr. **Felrice**. I do not know if I would argue that it is insignificant. It is a factor that we considered, and we are dealing with tens of dollars per car.

Senator **Danforth**. Did you dismiss it out of hand after you considered it?

Mr. **Felrice**. No, we considered all the factors, including the time consumers spend on it.

Senator, if I may add just one thought, the agency's main mission is safety. The bumper standard does not deal with significant safety issues. At the speeds at which serious injuries occur, the bumper accounts for maybe one or two percent of the energy management of the vehicle.

The agency in the past has devoted a lot of effort to what is a consumer protection issue. I am not denigrating that, but it has taken resources away from what we could do in safety.

Even in the Carter administration, when the standard was looked at and retained at five, the studies showed that the five mile per hour bumper may have given the consumer again a benefit of about $30 over the life of the vehicle, all of which I would argue is fairly insignificant, since the average consumer is spending $20,000 to $30,000 to own and maintain a vehicle.

And I would also ask that, if the insurance industry believes that this is such a big factor in what they pay out, it might be something that they should consider in charging surcharges or discounts for different type bumper systems, which they do not currently do.

Senator **Danforth**. Let me ask you one other question, if I can, Mr. Chairman.

Senator **Bryan**. Absolutely, absolutely.

Senator **Danforth**. Do you view the automatic seat belts as as good as air bags?

Mr. **Felrice**. We have always said that the combination of an air bag and three-point belt is the best protection that an occupant can get, slightly more than an automatic seat belt or a manual seat belt would offer. We think the maximum effectiveness of an automatic belt is about 50 percent in reducing fatalities, and it is about 55 percent with an air bag plus belt.

But so far we are very pleased at the high levels of usage that seem to be occurring with automatic belts, generally in the 60 to 95 percent range.

Senator **Danforth**. They are easily detached, though, are they not?

Mr. **Felrice**. Some are, yes.

Senator **Danforth**. And in fact, in a study of showrooms was it not found that only one in 20 cars in showrooms had both driver and passenger automatic belts connected?

Mr. **Felrice**. Yes, that is true. We were petitioned by the Insurance Institute for Highway Safety in two matters: One, to bring an enforcement action against dealers, because we have issued a ruling, an opinion, that those belts must be connected in the showroom. Of course, consumers as they enter and exit a car are free to disconnect them, but the dealership has an obligation to reconnect them.

Senator **Danforth**. That is precisely the point that I am making, is that if only one in 20 are connected in the showroom, some dealers may comply, some may not, but it is a very simple matter to disconnect the automatic belts, right?

Mr. **Felrice**. Right, although the usage data for those belts that are easily disconnectable still shows usage in the 60 to 70 percent range on the road.

Senator **Danforth**. Versus 100 percent for air bags.

Mr. **Felrice**. 100 percent for air bags.

Senator **Danforth**. Thank you.

Senator **Bryan**. Mr. Felrice, we recognize that you come here at somewhat of a disadvantage without an Administrator. But I must say some of these answers I find to be astounding, although, unlike my colleague, I have not heard these answers before from the agency.

But I hope you will remain because other witnesses on the panel's testimony is considerably to the contrary, and we hope to have a chance to have the agency back before us again to respond more specifically to those concerns.

Thank you very much for joining us this morning.

The next panel will consist of: Ms. Joan Claybrook, who is the President of Public Citizen; Mr. Clarence Ditlow, Executive Director of the Center for Auto Safety; and Mr. A. Benjamin Kelley, President of the Institute for Injury Reduction.

And if we could ask the panelists to join us, please, at the witness table.

Good morning to each of you, and we would like to hear from Ms. Claybrook first. And in the interest of time, we would like to ask you to try to confine your testimony to five minutes, so that we will have a chance for questions to each of you.

Ms. Claybrook, you may proceed.

STATEMENT OF JOAN CLAYBROOK, PRESIDENT, PUBLIC CITIZEN

Ms. **Claybrook**. Thank you, Mr. Chairman. We very much appreciate the opportunity to testify this morning.

I would like to emphasize that I think it is very important for the Senate to pass this bill as rapidly as possible since we seem to have had some problems getting bills passed over on the House side on the NHTSA authorization, and those of us who would like to see this bill passed would like the maximum time possible to address that issue over on the House side.

I would like to say that I think one of the most important things in this legislation are the time deadlines. As someone who ran this agency for four years and had experience with standard setting without a time deadline, I would like to say that I think it is terrifically important, both for the person running the agency to have a clear message from the Congress and also for the public.

I think back in the late 1960's, when General Motors came in and said that shoulder harnesses would injure occupants in crashes and caused a delay in the consideration of the standard, as one example of the kind of diversionary tactics that go on in rulemaking and this agency, and have gone on for 20 years.

And I think of the uniform tire quality grading standard, which Senator Nelson's amendment in 1966 required be issued by 1968, and when it had not been issued by 1974 Public Citizen sued and eventually that standard got issued.

So a time deadline is extremely important, even if it takes longer than the amount of time that is in the statute, because it gives a clear message to the agency, it allows the folks outside who think the standard is important to sue if that is necessary as a last resort, and it gives the Congress a standard against which to measure the agency's performance.

It also gives the Office of Management and Budget an instruction, and also it requires the funding of the research necessary in order to issue that standard, which otherwise might not be issued.

I would like to mention a few particular standards. My estimate, based on agency research, is that your bill would save about 3,000 lives a year when these standards that you have proposed are fully in effect, and that is a very important step.

This agency has the authority to issue motor vehicle safety standards which have been proven to save lives. There is absolutely no reason why cars cannot be upgraded so that they can achieve that goal.

And in calculating that number, I look particularly at side impact protection, at the requirements for light vans and trucks, and the rear shoulder harness.

In addition, there are several standards concerning which the agency, including Mr. Felrice by the way, has done a lot of research in the interstices of the agency, that is ready for a new Administrator to use for decisions. One of them is pedestrian safety. The agency's research shows that at crashes under 20 mile per hour significant protection could be provided particularly for those individuals who are most vulnerable in pedestrian crashes, which are children and older people.

And in the area of large trucks, a standard for brakes—anti-lock brakes—is essential and should be issued.

On roof crush, I would like to mention that the standard for cars is so inadequate that, even if the current vans and light trucks, Senator Danforth, meet the standard for cars, it is meaningless because that standard is totally inadequate; and that what really needs to be done is a reconsideration of the entire roof crush standard for cars, vans, and light trucks.

And finally, just one little example of the kind of lifesaving that is possible. The agency has estimated that one inch of padding on the A-pillar and the roof headers would reduce head injuries by 50 percent in crashes of 20 mile per hour or less. That is just one example of the kind of protective capability that fixing up these cars has.

I strongly endorse, even though the agency does not, the right to judicial review. I think it is incredibly important to have external pressure on the agency. I think Senator Danforth put it best when he said that the agency has become a comic book example, and it would not be if the outside world were better able to force the agency to take action when, for whatever reasons inside, they do not.

And finally, I would like to mention the issue of point of sale information on the crashworthiness ratings. You have a study and possible rulemaking in your bill. I do think it is very important to state, if this standard is issued, if the requirement is put into place, that the dealers would be required to distribute this information at point of sale, not that the Secretary would have the discretion to ask them to do so.

I think that those are really the points that I wanted to highlight, Mr. Chairman. I really appreciate the opportunity to testify.

I would like to submit for the record,[1] if I could, the GAO study that shows the length of time it has taken this agency to deal with three standards that are mentioned in your bill. I think that is a good reason and an example for having time deadlines in your legislation.

Senator **BRYAN**. Without objection, that will be included in the record by reference.

[The statement and questions and answers follow:]

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[1] See GAO/RCED-89-11FS.

PUBLIC CITIZEN

Buyers Up ☐ Congress Watch ☐ Critical Mass ☐ Health Research Group ☐ Litigation Group

Testimony by Joan Claybrook
President, Public Citizen
On S. 673, NHTSA Authorization Legislation
Before the Committee on Commerce, Science and Transportation
Consumer Subcommittee
U.S. Senate
April 5, 1989

Mr. Chairman, members of the Committee, thank you for the opportunity to testify today on S. 673, the National Highway Traffic Safety Administration (NHTSA) authorization legislation. My name is Joan Claybrook. I am president of Public Citizen and former Administrator of NHTSA from 1977-1981. Public Citizen is a national public interest organization with 50,000 members nationwide.

We very much appreciate your early consideration of this legislation Mr.Chairman, because there has been great difficulty in recent years getting the House of Representatives to act on NHTSA authorization legislation. It would be helpful to pass and send over the Senate bill as soon as possible to assure it will be enacted in this Congress. No NHTSA authorization bill has been enacted since 1982.

This Congressional failure suggests this program is unimportant. Yet motor vehicle crashes are the leading cause of injury and death for Americans under age 44, and government research shows that many of these casualties could be mitigated

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or prevented with available vehicle safety technologies. With 46,896 Americans killed annually on the highway, an average of 128 are killed each day. This is the equivalent of a major airline crash a day, every day of the year, a situation this nation would never tolerate from the airline industry. Can you imagine the Congress not giving full attention to that calamity?

The overall economic costs similarly are not insignificant. The loss to society is at least $75 billion a year, about $700 per family. This does not include the human costs of pain and suffering, or dependency from disability borne by individuals, their families, or friends. Motor vehicle crashes are the fourth leading cause of death, but the costs of these injuries are second only to those of cancer because the age at which they occur is much lower than for other leading causes of death and disability. Fully 32% of those killed on the highway are age 15 to 24, although this age group represents only 16% of the total population.

Public Citizen endorses S. 673 because it takes a giant step toward reducing this carnage. We are particularly pleased that the requirements in the bill contain absolute deadlines for completion of the tasks listed. This is critical. The NHTSA during the past eight years has moved at a snail's pace to issue new or significantly upgraded motor vehicle safety standards. A recent report in January 1989 by the Government Accounting Office reveals that three safety standards--rear seat lap/shoulder belts, side impact protection, and head restraints for light trucks--have been in process 21 to 27 months and are yet to be issued. What the report does not mention is that the Congress and public interest advocates have been badgering and petitioning the agency to issue these standards for years to little avail.

The only effective remedy is congressionally mandated deadlines for action. But let me caution that even legal deadlines do not always work in isolation. Congressional oversight and vigilance is needed as is a willingness to seek court orders for enforcement of the statutory deadline as a last resort. For example, the NHTSA in the last eight years has been consistently several years late in submitting its annual reports to Congress, by which time they are almost useless. In fact, the 1985 report was not submitted until August 1988, even though it was due in July 1986. The 1986 and 1987 reports, now almost a year and two years overdue, have yet to be submitted, because virtually no fuss has been raised about this.

With a date certain in the law various actions can be taken to make the agency perform. This is important because motor vehicle safety standards result in immediate, effective and predictable savings of lives. During the Reagan years, only one new safety standard was issued, and it had been proposed in the prior administration. This lackluster performance is disturbing, for the mission of this agency is nonpartisan. It is to save lives and reduce injuries. Yet it has done little over the past eight years to translate the vast amount of information it has developed over the past 20 years into safety standards to achieve this goal.

This failure to issue standards and the revocation of some existing standards such as automatic restraints by the last administration has been very costly. Over 40,000 Americans have died or will die on the highway who could have been saved by automatic restraints according to the savings figures published in 1984 by Transportation Secretary Elizabeth Dole.

By contrast, Mr. Chairman, your bill requires the issuance of safety standards that should save at least 3,000 lives and many thousands more injuries each year according to research and analysis by the NHTSA. For example,

* **Side Impact Protection.** Side impact crashes cause 8,000 occupant deaths and many more injuries annually; 1,000 could be saved with a dynamic side impact standard to protect occupants in car-to-car crashes by reducing thoracic/abdominal injuries, head injuries from contacts with the A-pillar, and side door ejection. Another interim remedy to spur rapid vehicle redesign for side impact protection would be a requirement for the agency to conduct side impact crash testing at 35 mph (as it has done for frontal crashes for a decade). I urge you to consider adding this to the bill.

* **Light Trucks & Vans.** Over 7,800 people are killed in light trucks, vans and utility-type vehicles annually, accounting for about 20% of all vehicle occupant fatalities. Deaths in these vehicles increased 23% from 1983 to 1987. The death rate from rollover crashes in sport/utility vehicles with their high

center of gravity and narrow track width (inadequate stability factor) is more than double passenger cars. Standards for head restraints, high mounted rear lamps and fuel system integrity also should be applied to these vehicles as they are to cars. At least 2,000 lives plus thousands more injuries could be saved just with the installation of passive restraints, especially air bags.

* **Rear Shoulder Harness.** Rear shoulder harness/lap belts are 8-10% more effective than lap belts alone. While the number of people killed and injured in rear seating positions is comparatively small and many do not wear any belts (1,700 killed in 1987 with 87% unrestrained), the cost of the harness is also small because installation of the upper torso anchorage has been required in all new cars for years. Only the webbing and webbing hardware need to be added. At 32% usage of rear belts, 50 lives and 1000 serious injuries could be prevented with shoulder harness/lap belt combinations compared with lap belts alone. These savings would increase as usage increases. The cost is estimated at about $14 compared to $200 to $300 reported by consumers for retrofit in current model cars.

In addition to the standards that the bill would require be issued, Public Citizen suggests several additional standards be included that could save another 1,000 lives annually.

* **Pedestrians.** There are about 7,500 pedestrian fatalities and 150,000 injuries each year. Youths under age 15 and seniors age 65 and older account for 25% of pedestrian fatalities and 40%

of the injuries. Pedestrians have a much higher probability of being injured than do occupants. Pedestrians are consistently involved in about 2% of highway crashes but account for 16-18% of fatalities. Ninety percent of pedestrian crash victims require medical treatment compared to 18% of other crash-involved road users.

NHTSA research indicates that many hundreds of fatalities and thousands of serious pedestrian injuries could be prevented, particularly in crashes of 20 mph and below. Long delayed standards making striking vehicles more forgiving should be adopted to soften the front ends of cars, reduce hood stiffness, lower underhood components, reduce stiffness of frontal structures, eliminate frontal protrusions, and lower the impact surface below the bumper. Some existing production models already incorporate these various technologies.

* **Large Trucks.** Large truck crashes kill 4,750 and injure about 150,000 people annually. Most of these (4,000 deaths and 100,000 injuries) are occupants of other vehicles or pedestrians. One of every three tractor trailers can be expected to crash every year, a rate far higher than passenger cars. Deficient braking systems could be a contributing factor in as many as one-third of these crashes. The most important improvement to reduce death and injury from large truck crashes is improved handling and stability, including installation of anti-lock braking systems. These systems have been used for years on aircraft and more recently on luxury automobiles. Although an antilock truck

brake standard was in effect from 1975-1978, some low quality systems were installed by an unprepared industry, creating opposition in the trucking industry and resulting revocation of the standard by the 9th Circuit Federal Court of Appeals. It should be reissued immediately without any more delay for unneeded, diversionary studies. In addition, with a reduction in large truck aggressivity (to limit damage to other highway users), several hundred lives could be saved annually.

* Roof Crush and Seat Back Strength. The existing requirements for protection from roof crush and seat back strength are woefully insufficient and should be improved. The roof crush standard should require improved structural components (pillars, headers, side rails), door hardware to prevent ejections, and interior surface padding.

* Interior Component Improvements. Better management of crash energy in frontal crashes is possible with interior component improvements, such as eliminating hard surfaces on instrument panels, increasing the contact area and energy absorption of the front header and front A-pillar, and improving windshields with glass/plastic designs to absorb more energy and further mitigate ejection. A very simple addition, just one inch of padding on the A-pillar and roof headers, could reduce head injuries by up to 50% at 20 mph impact speed. Thousands of head injuries occur each year from contact with these unforgiving areas. Hundreds of lives could be saved annually and the cost would be very small.

Most of these safety systems were incorporated successfully in the Research Safety Vehicle produced by NHTSA in 1978. This program was discontinued in 1981. It should be refunded as mandated in section 106 of the National Traffic and Motor Vehicle Safety Act.

Several other smaller suggestions for improving the bill: Require, not just permit, the Secretary to get auto dealers to distribute bumper performance information; require the agency to consider the conspicuity safety standard issued in January 1981 after ten years of work and then revoked by the new administration, and to consult with the medical profession and academic experts in preparing the darkened windows study; consider the advantages for effective auto insurance rating with the improved information that could be developed by state motor vehicle inspection/emissions programs.

Section 202 of the bill, requiring a study of and possible issuance of a requirement for crashworthiness data made available to purchasers at the point-of-sale is important as has been shown by the fuel economy point-of-safe information. If the data are going to be used, they must be available at the moment of decision. The test data will also have an important impact on manufacturers who will move to improve the safety of their vehicles rather than suffer an inferior rating in the car showroom.

Section 301 of the bill, requiring a schedule for ensuring compliance of motor vehicle safety standards, opens up an important issue--the fact that portions of many standards are not capable of being effectively tested and enforced and yet have never been improved and upgraded to assure effective enforceability (most were originally issued in the 1960's). We urge that this section require identification of such items and that the agency be required to upgrade them.

A related provision, authorizing judicial review of agency decisions, is a very important incentive to spur agency to be active and effective. Under this section the courts could review the agency's decisions without having to debate whether citizens can take such a case into the courtroom.

We are concerned about Section 312 of the bill, which is intended to require manufacturers to petition at least 24 months in advance of a model year for modification of a fuel economy standard. We agree completely with the intent of this amendment. But we are concerned that by amending section 502(d) rather than section 502(f) of the Motor Vehicle Information and Cost Savings Act unintended consequences may be permitted. We would like to work with committee staff to suggest technical changes in this section.

In addition, Mr. Chairman, we applaud you for including in the bill requirements for installation of air bags in all government automobiles. We hope the legislative history will emphasize that DOD, the Post Office and other agency buyers besides GSA be covered by this requirement. Public Citizen has long been an advocate of government procurement leadership.

We also are particularly pleased to see the bill contain funds for promotion of air bags over the next few years, because many Americans are unaware of how they work and why they save lives. Standard 208, requiring installation of automatic restraints, is estimated to save 6,000 to 9,000 lives when fully in effect. We should make every effort to have this standard payoff as predicted and to encourage the automotive industry to install air bags. Public education and information is a critical component of such a success story.

Mr. Chairman, we also approve of the small increase in authorized funds for this agency with its life-saving mission. While we must all be frugal as we attempt to reduce budget deficits, NHTSA is one of the most important public health agencies in America, and it one of the most underfunded. With your list of priorities and deadlines, the agency will need the additional funds to aggressively carry out this important safety mission.

Thank you.

QUESTIONS OF SENATOR BRYAN

Question 1. You testified at the Subcommittee's hearing about the need for pedestrian safety measures, particularly in vehicle design. Please provide any information available to you, in addition to that provided in your earlier testimony, about the best methods to enhance pedestrian safety, particularly through vehicle design.

Answer 1. Attached is a package of information on the potential improvements that could be made in vehicle design to save hundreds of pedestrian fatalities and many more injuries, particularly in crashes 20 mph and below. [These materials are available in the subcommittee's files].

Question 2. Your testimony at the Subcommittee's hearing included a discussion of the need for improved "A" pillars in vehicles in order to reduce head injuries. Please provide any information available to you, in addition to that provided in your earlier testimony, about your recommended changes in the "A" pillars, and the types of injuries and accidents such changes would address.

Answer 2. Attached is a paper presented by staff of the National Highway Traffic Safety Administration at the 11th Experimental Vehicle Conference in 1987 on reduction of head injuries through improved vehicle design, including padding of the A-pillar, header above the windshield and other similar structures. [This paper is available in the subcommittee's files].

Question 3. Your testimony at p. 4 states that the provisions of S. 673, if enacted, would save approximately 3,000 lives per year. Please provide the basis for that calculation.

Answer 3. My estimate of the savings of lives resulting from the enactment of S. 673 is based on NHTSA research. Approximately 1,000 lives would be saved by implementation of a strong dynamic side impact crash test standard (applicable to cars and vans/light trucks), and approximately 2,000 could be saved with passive restraints in light trucks/vans. The other standards would also save lives, but the estimates are less clear. Thus, I used a conservative number but I believe the savings could be larger.

Senator BRYAN. Thank you very much, Ms. Claybrook.

Mr. Ditlow, we will hear from you next.

STATEMENT OF CLARENCE M. DITLOW III, DIRECTOR, CENTER FOR AUTO SAFETY

Mr. DITLOW. Mr. Chairman, Senator Danforth: I thank you for the opportunity to testify on NHTSA's authorization.

This Committee's oversight comes at a crucial time, as traffic fatalities are on the rise after declining from their high level of about 55,0000 in the late 1960's, before the first Federal vehicle and highway safety standards sharply reduced highway deaths.

S. 673 contains many needed safety measures, with the most important being a new side impact standard, extending safety standards to multipurpose passenger vehicles, and reinstating the most popular Federal vehicle safety standard ever, the five mile per hour bumper standard.

Since other witnesses will focus on standards, I want to focus on something that is very close to the heart of the Center for Auto Safety, and that is the defect review provision. One of the most obvious safety failings of the past eight years is the decline of the defect recall program.

For every car or light truck recalled, another one went unrecalled even though DOT asked the companies to recall the vehicles. A Center study of DOT's recall program from 1981 to 1986 found 36 cases where DOT asked for a recall, but failed to get the recall sought, and just two of those I would like to bring to your attention.

1981-82 Ford Escorts and Lynxes which had their front seatbacks fall backward. These cars were made in a plant and sold both in the U.S. and Canada. DOT here asked for a recall, the Canadian DOT also asked for a recall. Canada got their recall, the U.S. did not, and on January the 26th of 1989 DOT closed their investigation without a recall of that.

And I suggest that the same cars made in the same plants—that American consumers deserve the same protection as Canadian consumers. DOT will point out a difference in the law, but the difference is small, and if there is a difference perhaps our law should be changed.

Another one is where the crankshaft pulley bolt fell off 1981 to 1984 Chevettes and Pontiac T-1000's. In one instance, it came off the car, hit an oncoming driver, and killed that driver.

The Department of Transportation asked for a recall. GM said no. They closed the investigation, and we had to organize a private class action to carry out the functions of the government, and that private class action in essence got the recall that DOT could not.

Compliance investigations have the same problems. The Thomas school buses. In 1974 Congress passed a law saying to DOT: upgrade the joint strength of school buses. DOT issued a standard in 1977. Thomas failed eight difference compliance tests.

DOT in essence asked Thomas for a recall. Thomas went over NHTSA's head to the Secretary of Transportation, got the investigation killed. And DOT's only explanation is, well, the standard is unenforceable and they are going to issue a new standard. So 15 years after Congress said protect school children in crashes, DOT says, we have to rewrite that standard, even though that standard was mandated in 1977.

The problem with this is that we cannot challenge egregious cases at the Department of Transportation, like the Thomas school buses, like the Suzuki Samarai, because NHTSA's failure to protect the public from safety defects is compounded by the loss of an important check and balance, the citizen's right to sue after the denial of a petition under section 124.

Until the decision in the Ford transmission case, citizens could challenge the action, and that was set forth in 1970 when Ralph Nader obtained an order in the District Court here in D.C. that an investigation closed with a partial notification and recall should be remanded to the agency with instructions to complete the investigation and report back to the court.

And as a result of that order, all GM trucks with defective Kelsey-Hayes wheels were recalled, not just those with camper bodies, which GM said overloaded the trucks.

We have a one on one situation with other cases that are being closed out on a daily by day basis, and yet we cannot look at the record of the agency in the court to challenge it on an arbitrary and capricious basis.

Indeed, as to the floodgates of litigation, from 1971 until 1987 NHTSA was held accountable under the Nader versus Volpe decision on an arbitrary and capricious judicial review standard and could not arbitrarily close cases or deny citizens' petitions.

But in 1988 that changed, and as a result we have lost a needed check and balance. By providing for judicial review of NHTSA's decisions, S. 673 restores the needed check and balance in NHTSA's enforcement actions.

I would like to call your attention just to a few other items. S. 673 contains so many needed safety measures that we are hard put to point out which ones are the most important, although I did highlight a couple of the others.

There are a few more items within NHTSA that merit this Committee's attention, including the fact that we do not have criminal penalties for knowing and willful violations of safety standards, whereas we do for willful violations of emissions standards.

We have a trivial $800,000 penalty for manufacturers that is sorely outmoded and needs to be raised. And NHTSA has done nothing on the area of pedestrian protection, even though there are measures that could be adopted to significantly reduce pedestrian injuries and fatalities each year.

And finally, I would like to point out that there are other areas, like motorcycle helmet laws, where we in fact do need to revisit those because people are being killed far too often, society is paying the costs, and NHTSA's inaction is in essence allowing the manufacturers off the hook.

Thank you.

[The statement follows:]

STATEMENT OF CLARENCE M. DITLOW III
DIRECTOR, CENTER FOR AUTO SAFETY
Before the
CONSUMER SUBCOMMITTEE
SENATE COMMITTEE ON COMMERCE, SCIENCE AND TECHNOLOGY
Washington, D.C., April 5, 1989

Mr. Chairman and members of the Committee, thank you for the opportunity to testify on authorization of the National Highway Traffic Safety Administration (NHTSA) and S. 673. The Center for Auto Safety is a non-profit organization founded by Consumers Union and Ralph Nader in 1970 but is now independent of both. The Center works to improve vehicle and highway safety.

This Committee's oversight comes at a crucial time in vehicle safety as traffic fatalities are once again on the rise after declining from their high level of about 55,000 in the late 1960's before the first federal motor vehicle and highway safety standards sharply reduced highway deaths. Initial DOT estimates for 1988 report nearly 47,000 fatalities, an increase of 6% from 1985 and 10% from 1983.

This increase is all the more ominous as it comes at a time when mandatory seat belt use and stiffer drunk driving laws should be reducing fatalities even further. Prior safety gains are being eroded as the original vehicle standards become outmoded, highway speeds increase, vehicle safety enforcement programs become lax, and more passengers ride in light trucks and vans which do not have to meet passenger car safety standards.

SAFETY DEFECTS AND RECALLS

One of the most obvious safety failings of the past eight years is the demise of the defect recall program. For every car or light truck recalled during the past administration, another car or truck went unrecalled even though the Department of Transportation asked the manufacturers to recall the vehicles. The backlog of defective vehicles has grown to 70 million and has resulted in at least 20,000 accidents, 7,000 injuries and 500 deaths. A Center study of DOT's recall program from 1981-86 found 37 defect investigations (excluding motorhomes) where DOT had asked for a recall but failed to get the recall sought. These cases include:

* 1977-84 Ford 350 series trucks and vans, dual rear wheels fall off; 456,500 vehicles; 2000 complaints, 240 accidents, 115 injuries, 3 deaths. Date of requests: 7-5-79, 10-31-84 (case dropped 9-20-83, then reopened). Upgraded to formal defect investigation 9-30-85. Investigation status: closed 8/88.

* 1980 GM "X" cars, loss of power brakes; 1 million cars; 1000 complaints, 100 accidents, 30 injuries. Date of requests: 8-12-83, 7-24-84. Investigation status: closed 10-11-88.

* 1979 Ford Mustang/Capri, rear brake lockup; 450,000 cars; 100 accidents, 40 injuries, and 7 deaths. Date of requests: 3-30-83, 11-3-83. Investigation status: upgraded to formal defect investigation 4-3-84, pending.

* 1981-83 GM "C" & "E" luxury Cadillacs, Oldsmobiles & Buicks; door fires; 1 million cars; 86 fires, 2 injuries. Date of request: 9-4-85. Investigation status: closed 2-18-88.

* 1981-82 Ford Escort/Lynx, front seats fall backwards; 1.2 million cars; 43 accidents, 35 injuries. Date of requests: 11-1-83, 5-23-84. Ford recalled only 80,000 of the 1.2 million cars. Ford recalled all Canadian models, 6-88. Investigation status: closed on 1-26-89.

* 1978-82 Chrysler K-cars & Omni/Horizon with 1.7 & 2.2 liter engines, stalling; 2 million cars; 17 accidents, 2 injuries. Date of request: 5-12-83. Investigation status: case dropped in 1984; re-opened after CAS petition; closed again 12/86.

* 1981-84 GM Chevrolet Chevette & Pontiac T1000, crankshaft pulley bolt breaks off (loss of power steering & brake assist); 156,000 cars; 9 accidents, 4 injuries, 1 death. Date of request: 5-9-86. Investigation status: closed 9-4-87. GM agreed to settle private class action litigation by conducting service campaign.

* 1982-83 Toyota Cressida, sudden acceleration; 72,000 cars; 51 accidents, 14 injuries, 1 death. Date of requests: 2-28-86, 5-6-86. Toyota recalled 5% of affected vehicles. Investigation status: closed 2-18-88.

While the Center has not conducted an investigation of DOT's compliance investigations, indications are that the same lax enforcement policy exists there. One example is the eight separate compliance investigations of Thomas Built for violations of FMVSS 221 governing joint strength in school buses. After Thomas failed every compliance test since 1977, NHTSA informed Thomas on October 5, 1983, that it faced a compliance recall. But after Thomas went over NHTSA's head to the Secretary's office, three investigations were closed on June 21, 1985, and the remainder on September 4, 1987. This was despite four Thomas bus crashes that killed 11 and injured

62 and two NTSB investigations criticizing NHTSA actions.

Recalls reflect the lax enforcement policy in averaging 215 per year for the last eight years versus the average of 300 from 1971-80. Recalls are also down because investigations into defects continue to plummet with only one formal defect investigation opened in 1986, two in 1987 and one in 1988, the lowest in the history of the Department of Transportation. Including mid-level Engineering Analyses, the number of investigations opened from 1981-88 averaged 42 per year versus 138 from 1977-80.

Since DOT is a toothless tiger that will not back up its recall requests with formal defect determinations and lawsuits to compel a recall, manufacturers can refuse to recall without fearing any adverse consequences. The only lawsuit which DOT filed to force a recall came in the case of brake lockup in GM X-cars only after two House hearings, two General Accounting Office reports and front-page newspaper stories questioning DOT's inaction in the face of the mounting deaths, injuries and accidents from this defect.

NHTSA's failure to protect the public from safety defects is compounded by the loss of an important check and balance -- the citizen's right to sue after the denial of a petition under Section 124 of the Safety Act. Until the decision in Center for Auto Safety v. Dole, 846 F2d 1532 (1988), citizens could challenge the agency's decision to close investigations or refusal to take action on defects. In Nader v. Volpe, Civ. Act No. 960-70 (June 26, 1970), Ralph Nader obtained an order that an investigation closed with a partial notification and recall should be remanded to the agency with instructions to complete the investigation and to report back to the court. As a result of that order, all GM trucks with defective Kelsey-Hayes wheels were recalled, not just those with camper bodies. From 1971 until 1987, NHTSA's was held accountable under an arbitrary and capricious judicial review standard and could not arbitrarily close cases or deny citizen petitions.

In 1988, the Court of Appeals for the District of Columbia upset this careful check and balance by ruling that NHTSA's decisions on citizen petitions under § 124 are not reviewable. Section 313 of S.

673 would provide for judicial review of the agency's decisions and restore the needed check and balance on the agency's actions in the area of defects and recalls.

PASSIVE RESTRAINTS

The most important measure to take to reduce traffic deaths is to get full front-seat airbags installed in cars, light trucks and vans. Once air bags are installed in all these vehicles, they will save 12-15,000 lives per year. Even with the choice of airbags and automatic belts under the passive restraint standard, public demand will lead to airbags dominating the market. According to a Newsweek poll of 15,475 1986 new car buyers, 87% believe "airbags should be standard equipment on all new cars." Market research done by GM throughout the 1970's showed the majority of the American public prefer airbags to other forms of occupant restraints. A 1979 GM survey found 70% preferred airbags to three different systems of automatic belts. The reason why the airbag will dominate the market and why the auto industry didn't win the regulatory war is simply the lifesaving airbag is too good a technology to kill.

REAR SHOULDER BELTS

The 1986 National Transportation Safety Board (NTSB) report detailing the relative inadequacy of lap belts came as no suprise to experts who have long known that shoulder/lap belts are far superior to lap belts alone. The Center first petitioned DOT to require shoulder/lap belts for rear seats in 1974 and has continued to call for them ever since based on regular reports to us of individuals who have been seriously injured in rear seats of cars while wearing lap belts. Even General Motors' studies show lap belts are only 7-18% effective in preventing fatalities as compared to 41% for shoulder-lap belts.

Although most car companies have said they will install rear shoulder belts in future new cars, their plans are not as certain as a Federal regulation and lack enforceability if they should slip. And although DOT is finally moving ahead in its standard to recall rear shoulder belts, we have seen many a delay in the past between a proposal and a final rule so this Committee is wise to require DOT to finish the job in S. 673. It is important to note there has been little visible movement to making retrofits and information on how to install them available to the large numbers of consumers who want shoulder harnesses in their present cars. NHTSA should move forward in this area to at least provide information to consumers on belt retrofits.

LIGHT TRUCK SAFETY

The public is largely unaware of the fact that vans and pickups do not have to meet the same safety standards as cars and station-wagons. Even though these vehicles are used to carry families and for recreation, they do not have to meet such major safety standards as side impact, roof strength, head restraints, bumper protection, passive restraints and high-mounted brake lights. Although passenger car occupant deaths decreased from 25,929 in 1975 to 25,113 in 1987 (a 3% decrease), light truck deaths increased from 4,332 to 6,935 (a 60% increase) during the same time period. More stringent safety standards would have offset some of this increase.

When less stringent safety standards were first set for vans and pickups in the late 1960's, there may have been some reason for exemption from some standards since they weighed substantially more than passenger cars and were not used for the same purposes. Since then, these vehicles have shrunk in size and are used for the same purpose as passenger cars. In the early 1970's, the Center petitioned DOT to extend all passenger safety standards to these vehicles without success.

In 1978, the General Accounting Office issued a stinging report entitled "Unwarranted Delays by the Department of Transportation to Improve Light Truck Safety" which pointed out light trucks had become increasingly popular and the number of people killed in them had increased. GAO specifically noted light truck occupants fared worse in crashes than occupants of cars and called on DOT to impose passenger car standards on these vehicles. Although DOT extended some additional safety standards to light trucks after the GAO report, the major ones noted above were not adopted even though DOT indicated it would do so in its 5-year program plan in 1979. One of the most important provisions in S. 673 is the requirement that NHTSA move forward with rulemaking to require multipurpose passenger vehicles (vans and light trucks) to meet roof strength, passive restraints, head restraints, high-mounted brake lights and bumper protection similar to passenger cars.

SIDE IMPACT PROTECTION

In 1985, 7,352 or 32% of the 23,192 car occupant deaths occurred in side impacts. In 1980, 7,671 or 28% of the 27,433 car occupant deaths occurred in side impacts. This increase in the percentage of occupants killed in side impacts can be attributed to the inadequacy of the side impact standard which dates back to 1973 cars. Since the standard depends upon the weight of the car and requires less side strength for lighter cars, it requires less protection for cars which need more protection. DOT has long recognized this weakness and has completed all the work necessary to issue an advanced side impact standard which requires highly effective dynamic testing. By requiring DOT to issue a side impact standard within one year for cars and two years for light trucks and vans, S. 673 will complete a long overdue job and start saving at least another 4,000 lives per year.

5-MPH BUMPERS

One of the most popular vehicle standards ever issued by DOT was requiring bumpers that permitted no damage to the car or the bumper in a 5-MPH collision into a wall. Although this standard took effect in 1978 and saved consumers nearly a half-billion dollars a year, DOT rolled the standard back to 2.5 MPH for 1983 models. Although consumers were promised better fuel economy, lower car prices and a new rating system to tell good bumpers from bad ones, the only thing consumers ever got was large repair bills for accidents at speeds no faster than a toddler walks. By reinstating the 5-MPH bumper rule and requiring a bumper rating system for higher speed collisions, S. 673 will save consumers billions of dollars. The Center suggests the rule apply to light trucks and vans as well.

TIRE REGISTRATION

Another program which should be reinstituted is mandatory tire registration to ensure that defective tires are replaced when they are recalled. When a tire is defective, its failure is prone to lead to an auto accident. Yet if the tire is not registered with the manufacturer, the consumer is unlikely to get any notice of its recall and risks an accident everytime the car is driven. When the infamous Firestone 500 was recalled in 1978, the overall replacement rate was about 40%, with franchised dealers who had registered the tires being much higher and independent dealers who had not effectively registered the tires being as low as 2.4%. Under the present voluntary registration system, less than 10% of tires sold through independent dealers are registered. This deprives consumers of direct notification from the tire manufacturer in the event of a recall and subjects them to the risk of an accident. The answer is to statutorily mandate a tire registration system in which the tire company pays the small cents per tire cost and the paperwork is reduced by having a uniform registration form which can be sent to a central address.

OTHER SAFETY MEASURES

While S. 673 contains so many needed safety measures there, are still a few more which we ask this Committee to consider. These include: criminal penalties for knowing and willful violations of safety standards and refusal to recall; removing the $800,000 ceiling on civil penalties under the Safety Act to be in line with the Clean Air Act which has no ceiling for violation of vehicle emission standards; requiring DOT to issue pedestrian protection standards in view of the 7,000 pedestrians who are killed yearly; and requiring motorcycle helmet use.

Senator BRYAN. Thank you very much, Mr. Ditlow.

Mr. KELLEY.

STATEMENT OF A. BENJAMIN KELLEY, PRESIDENT, INSTITUTE FOR INJURY REDUCTION

Mr. KELLEY. Mr. Chairman, Senator Danforth:

Examples of NHTSA's abandonment of duty under the act abound. During the past eight years, the agency has become an ineffective agency. Two especially glaring examples involve restraint systems and vehicle rollovers, and I would like to address those today.

NHTSA has failed to require and promote restraint systems that optimize the protection of occupants against injury and minimize the production of injury, including injury by the restraint system itself.

Your bill recognizes this in calling for a "national program of community education regarding the use and effectiveness of air bag technology" and in mandating that NHTSA adopt a final standard requiring rear seat lap/shoulder belts in all cars and "disseminate information to consumers" about retrofit kits for such belts.

All restraint systems are not equal, NHTSA's belief to the contrary. With belt use laws in effect in the majority of states and with the completion of FMVSS 208 passive restraint rule phase-in, NHTSA's top priority should be to assess all restraint systems in terms of both their injury prevention characteristics and their injury production characteristics, and to carry out rulemaking and public education programs that reflect the results.

This would discourage inadequate systems, such as rear lap-only belts and front seat slack-inducing windowshade shoulder belts, both of which are now permitted by the agency, and would encourage the more effective systems, such as the air bag/belt combination.

For instance, it has been known by NHTSA and by manufacturers for years that slackness in a belt will substantially decrease its ability to provide protection in a crash. Yet, in the name of comfort domestic manufacturers continue to install windowshade slack-inducing devices in many of their new cars.

The results of a new IIR study which we are releasing today bear on this. In the study, 30 new car dealerships in four states and the District of Columbia were contacted by a caller expressing concern at the presence of a slack-inducing windowshade device in his or her vehicle and seeking its disconnection.

Of the dealerships contacted, 27 absolutely refused to disconnect the slack-inducing device. The remaining three said they would have to look at the car before giving an answer.

These results make it alarmingly clear that safety-conscious car owners wishing to have these slack devices disabled or removed will get no cooperation from manufacturers or dealers, and have gotten none so far from NHTSA.

Second, let me turn to the problem of NHTSA's failure to take regulatory consumer information and defect recall actions to correct or prohibit the excessive rollover propensities of some utility and other multipurpose vehicles and to eliminate or correct the crashworthiness deficiencies of such vehicles.

Your bill seeks to correct these failures by requiring that NHTSA adopt a standard to protect against unreasonable risk of rollover of multipurpose passenger vehicles and extends to such vehicles the present passenger car standards governing roof crush and the provision of passive restraints for front seat occupants.

These actions are long overdue, as are steps by NHTSA to require recall of defectively designed, unstable, uncrashworthy utility vehicles already on the highways. These include the Jeep CJ series, the Suzuki Samarai, and others.

These vehicles present a triple threat to their buyers, owners, and passengers: First, they are marketed on the basis of thrills and risk-taking, messages likely to draw younger, inexperienced, risk-prone drivers.

Second, their inherent instability means they may roll over during emergency maneuvers in which a properly designed utility vehicle or passenger car would at worst skid.

Finally, because they offer little or nothing in the way of crash-protecting enclosure for the occupants, they are uncrashworthy when the rollovers occur. It is a deadly combination of factors.

The problem has been clearly understood for years, as have the approaches for solving it. Essentially, they involve designing, manufacturing and modifying such vehicles so as to increase their stability factors to desired levels by a combination of steps, including lowering the center of gravity, widening the track width, and lengthening the wheel base.

I have submitted a good deal of material to your staff, Mr. Chairman, on NHTSA's failures to do this and indeed NHTSA's reversal of its own staff recommendations that Senator Wirth's earlier petition for action in this area be granted.

NHTSA recently did initiate a rulemaking which it says may eventually lead to governments reducing rollover tendencies, but there is no guarantee that this rulemaking in fact will lead to that result, and this gives added priority to the language of your bill.

In conclusion, the Subcommittee is to be commended for its efforts, reflected in this bill and its earlier hearings and legislative language, to prod NHTSA into fulfilling its obligations to the public under the 1968 Act. It is a sad commentary on the state of the Federal motor vehicle safety program that NHTSA, through its recent posture of inaction, has stood the relationship of this Subcommittee and the Congress and the vehicle safety program on its head.

It should be NHTSA, not this Subcommittee, which takes the lead in making vehicles safer and crash deaths and injuries fewer. That is the clear, continuing mandate of the 1968 Act.

A Federal vehicle safety program whose guiding policies are based on indifference or even antipathy to vehicle safety regulation is little better than no program at all.

Thank you.

[The statement follows:]

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TESTIMONY OF BENJAMIN KELLEY,
PRESIDENT, INSTITUTE FOR INJURY REDUCTION,
BEFORE THE NHTSA AUTHORIZATION HEARING,
CONSUMER SUBCOMMITTEE OF THE SENATE COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION,
WEDNESDAY, APRIL 5, 1989

Mr. Chairman, Members of the Subcommittee:

I am appearing in response to the Subcommittee's request that the Institute for Injury Reduction, of which I am president, provide this hearing with its views on the National Highway Traffic Safety Administration authorizations bill (S. 673) and on "the performance of NHTSA, the effectiveness of the Administration's enforcement activity, and any safety measures deserving of particular attention."

As a general proposition, it is undeniable that during the past eight years NHTSA has become a relatively ineffective agency, unable or unwilling to carry out the mandates of Congress spelled out in the National Traffic and Motor Vehicle Safety Act of 1968. Its rulemaking activity has virtually ground to a halt. In that period no new rulemaking has been completed and, despite a flurry of notices and advanced notices of rulemaking intention, the Agency's eight-year history of dereliction gives little reason to think that its present leadership is sincerely interested in achieving motor vehicle safety progress.

Examples of NHTSA's abandonment of duty under the Act abound. The Subcommittee bill, S. 673, points up a number of these in its proposed requirements that NHTSA take long-overdue action in such areas as side impact protection, crashworthiness data development, extending basic safety standards to multipurpose vehicles, and restoring bumper damageability standards.

Two especially glaring examples of NHTSA inaction that has meant incalculable levels of needless death and injury involve restraint systems and vehicle rollovers. I will address the remainder of my testimony to these two areas.

1. NHTSA has failed to require and promote restraint systems that optimize the protection of occupants against injury and minimize the production of injury - including by the restraint system itself.

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S. 673 recognizes this in Section 102, which calls for "a national program of community education regarding...the use and effectiveness of airbag technology" - an effort NHTSA should have initiated years ago, without waiting for Congressional prodding.

It also recognizes this in Section 305, which mandates that NHTSA adopt a final standard requiring rear seat lap-shoulder belts in all cars, and also that the agency "disseminate information to consumers regarding the manner in which passenger automobiles may be retrofitted with lap and shoulder rear seatbelts."

IIR has repeatedly urged NHTSA to undertake vigorous programs of education, rulemaking and enforcement to ensure that inadequate restraint systems such as rear-seat lap-only shoulder belts and front-seat slack-inducing "windowshade" shoulder belts be precluded from installation on American cars (as they now are on cars in many European countries,) and that the public meanwhile be warned about the dangers of such systems on existing cars and be assisted in having them retrofitted with improved systems. (See Attachment I.) 1/

All restraint systems are not equal, NHTSA's claims to the contrary. With belt-use laws in effect in a majority of states, and with the completion of the FMVSS 208 passive restraint rule phase-in, NHTSA's top priority should be to assess all restraint systems in terms of both their injury prevention characteristics and their injury production characteristics - and to carry out rulemaking and public education programs that reflect the results.

This would lead NHTSA not only to undertake an effective effort for alerting motorists about inadequate restraint systems, but also to the setting of restraint-system performance standards that could be met only with the better systems, such as airbag systems capable of preventing serious injury in frontal barrier crashes of 40 mph or greater. (It is a deadly irony that today's passive restraint standard is based on a mere 30 mile per hour crash performance level despite the showing of NHTSA's own "Research Safety Vehicle" program, more than a decade ago, that airbags could be designed to provide protection in crashes at as high as 50 mph.)

Last year, IIR's concern over the injury-producing hazards presented by rear-seat lap-only belts led it to carry out a survey of car dealers to determine the extent to which manufacturers and dealers are willing and able to provide retrofit rear-seat lap-shoulder belt systems to car owners wanting to acquire them. The results were discouraging; they showed a general indifference or unwillingness by manufacturers and dealers toward providing such retrofit systems, and a practice of pricing them at very high levels in those instances where systems could be obtained. (See Attachment II.)

1/ The attachments I-VII were not reproducible.

Today we are releasing the preliminary results of a new study showing a similar, and similarly alarming, level of indifference by dealers and manufacturers toward the problem of hazard-producing "windowshade" belt features. (See Attachment III.) These devices, found on the majority of American-made cars now on the highways, induce slack in the shoulder portion of the belt (and in both the shoulder and lap portion on single-strand belts running through a non-clamping buckle attachment). Purportedly to increase the "comfort" of belt use and therefore the numbers of people wearing belts, the windowshade device allows the shoulder portion to become loose and remain that way - often without the user's awareness or intent - during travel and, lethally, during a crash.

It has been known by NHTSA and the manufacturers for years that slackness in a belt will substantially decrease its ability to provide protection in a crash. Yet in the name of "comfort", domestic manufacturers continue to install "windowshade" slack inducing devices in many of their new cars. Meanwhile, there is no reliable evidence that these devices have increased belt use levels. Nor is it likely that motorists, if asked, would say they prefer the "comfort" of a slack belt to the discomfort, pain, disability and, sometimes, finality of the injury a slack belt can cause.

In November of last year, IIR urged that NHTSA (1) initiate rulemaking to prohibit "windowshade" devices in future cars and (2) warn motorists about the hazards associated with such devices in present cars. We also urged that NHTSA and the car manufacturers take steps to see that such devices in present cars be deactivated, at least for owners not wishing to wear slack-inducing belt systems while travelling. (See Attachment I.)

So far, neither the agency nor the industry has moved to remedy this problem. NHTSA's position, expressed in a letter to IIR dated February 17, is that even though "it is true that excessive slack can reduce the effectiveness of safety belts," the agency does not "share the view of those who suggest that excessive slack in lap-shoulder belts currently presents a significant safety problem." The industry's position, expressed through its inaction, appears to be that whether they like it or not, motorists must continue to be exposed to the hazards of slack-inducing "windowshade" devices because that is how the companies have decided to design their belt systems. (See Attachment IV.)

The results of our new study bear this out. In the study, 30 new-car dealerships in four states and the District of Columbia - ten each from Ford, General Motors and Chrysler - were contacted by a caller who expressed concern at the presence of a slack-inducing "windowshade" device in their presently-owned car of a model sold by the dealer.

Specifically, the caller asked whether the dealership's service department would disconnect the device in order to eliminate the hazard of unwanted slack in the belt.

Of the 30 dealerships contacted, 27 absolutely refused to disconnect the slack-inducing "windowshade" device. The remaining three indicated they would have to look at the car before giving an answer.

The 27 dealerships refusing to disconnect the device gave the following reasons: Government regulations require the "windowshade" device, or prohibit its removal (17 dealerships); the belt system's design makes it impossible to remove the device (14); the manufacturer's policy prohibits removal of the device (3); removal of the device would create liability for the dealership (2).

These results are startling in two dimensions. First, they make it alarmingly clear that car owners wishing to have these safety-reducing devices disabled or removed will get no cooperation from manufacturers or dealers. Second, they reveal a gross misunderstanding by dealers of the federal restraint-system standards, which do not in any way require that belt systems be equipped with slack-inducing features.

Similarly startling were the specific comments of some dealers contacted in the survey. One assured that "a belt with slack is probably safe because that's the way it's designed to perform." Another said that if the belt was "some reasonable distance from your body, it will still lock up in an accident." Another was sure that even with slack in the belt, "the inertial switch will lock the belt and snap it back in the event of an accident." Another said that windowshades were there because of "federal policy, not manufacturer's." Yet another thought that "if there's slack in the belt, the belt will still stop you when you move forward." And another assured that "as soon as the car is hit, the belt springs back and locks up. That's the way it's supposed to work; slack doesn't matter."

Not all the dealerships we contacted were so grossly misinformed. Some warned that slack is a hazard, but said the only answer was to "keep tugging" on the belt to reduce the window-shade caused looseness. But the majority seemed to believe that slack presents no safety problem.

Slack, of course, presents a serious and well-documented safety problem, and the time is long overdue for NHTSA and the manufacturers to solve it through appropriate rulemaking, warnings, and "windowshade" disconnection programs. There is no excuse for a continuation of regulatory and manufacturing policies which impose the hazards of slack belts on unknowing or unwilling motorists.

2. NHTSA has failed to take regulatory, consumer information and defect recall actions to correct or prohibit the excessive rollover propensities of some utility and other multipurpose vehicles and to eliminate or correct the crashworthiness deficiencies of such vehicles.

Section 304 of S. 673 seeks to correct these failures by requiring that NHTSA adopt a standard "to protect against unreasonable risk of rollover of multipurpose passenger vehicles" and extend to such vehicles the present passenger-car standards governing roof crush and the provision of passive restraints for front-seat occupants.

These actions are long overdue, as are steps by NHTSA to recall defectively designed, unstable, uncrashworthy utility vehicles already on the highways. Voluminous evidence exists, and has existed for years, as to the inherently hazardous design of the AMC Jeep CJ vehicle series, starting with studies carried out at the University of Michigan and the University of North Carolina in 1980 and an Insurance Institute for Highway Safety rollover demonstration project involving the CJ-5 that same year. (This work became the basis for a CBS "60 Minutes" expose of the CJ's safety problems, shown in December, 1980.)

Since then a mass of evidence, including numerous studies completed by NHTSA and DOT staff members, has corroborated the pervasive role of unstable design characteristics in the abnormally high pattern of rollover behavior of the CJ vehicles and, more recently, other unstable utility vehicles including the Suzuki Samurai. That work, as well as the many hundreds of injury complaints brought against the CJ in the courts by people injured due to its unstable nature and resulting rollover behavior, have made it clear that vehicles with such design flaws are defective and should be recalled for correction. (See Attachment V.)

So-called utility vehicles such as the CJ series and the Samurai present a triple threat to their buyers, owners and passengers. First, they are marketed on the basis of thrills and risk-taking - messages likely to draw younger, inexperienced and risk-prone drivers. Second, their inherent instability means they may roll over during maneuvers in which a properly designed utility vehicle or passenger car would, at worst, skid. Finally, because they offer little or nothing in the way of crash-protecting enclosure for the occupants, they are uncrashworthy when their rollovers occur. It is a deadly combination of factors.

The problem has been clearly understood for years, as have the approaches for solving it. Essentially they involve designing, manufacturing or modifying such vehicles so as to increase their stability factors to desired levels by a combination of steps including lowering the center of gravity, widening the track width and lengthening the wheel base.

(The following video shows the positive effect on the CJ's rollover propensity simply of putting smaller tires on the vehicle and thereby lowering its center of gravity - an approach developed, in fact, by AMC engineers but not conveyed to NHTSA or owners of CJ vehicles. I have provided a print of this video to the Subcommittee for its record in this hearing. I have included in the video excerpts from Suzuki Samurai rollover demonstrations carried out earlier for NBC Television.)

Yet despite its detailed knowledge of the utility vehicle rollover problem and the availability of solutions and corrections to it, NHTSA has chosen to avoid taking either rulemaking or defect-recall actions. Thus today, the CJ, Suzuki Samurai, and similarly unstable, rollover-prone vehicles are permitted on the roads with impunity.

NHTSA has had repeated opportunities to confront this problem, yet has steadfastly sidestepped them. On at least two occasions it has been petitioned to declare the CJ defective. On each, solely on the strength of assurances by the manufacturer that the CJ was no less stable than other utility vehicles, NHTSA rejected the petitions. It must be said on NHTSA's behalf, however, that the manufacturer knowingly withheld from the agency its internal memoranda and conclusions showing its knowledge of the defect - material which, had the agency seen it, might have produced a different disposition of the defect petitions.

More recently, a member of Congress, Rep. (now Senator) Tim Wirth of Colorado petitioned the agency to establish a federal motor vehicle safety standard limiting the rollover propensity of such vehicles by governing, through objective criteria, their stability characteristics. In a remarkable episode of bureaucratic confusion, the Agency deferred action on the petition for more than a year. Finally the NHTSA staff agreed that rulemaking should be initiated, and recommended that action to the Administrator. The Administrator, however, reversed this carefully considered staff recommendation and ordered the petition rejected.

Not long afterward the Wall Street Journal, in an article dated July 31, 1987, provided details of this internal NHTSA reversal. (See Attachment VI.) IIR has obtained a complete set of the NHTSA documents reflecting the internal staff considerations and recommendations, and their ultimate, unexplained rejection by the Administrator. While these documents are too voluminous to attach to this testimony, I have provided a complete set to the Subcommittee staff for the record of this hearing. A summary of the documents is attached to this testimony. (See Attachment VII).

Subsequently NHTSA did initiate rulemaking which it says may lead to standards for reducing such rollover tendencies. However, there is presently no guarantee that the rulemaking in fact will lead to that result, which gives added priority to the Subcommittee draft bill's language in that direction.

Conclusion

The Subcommittee is to be commended for its efforts, reflected in this bill and in earlier hearings and legislative language, to prod NHTSA into fulfilling its obligations to the public under the 1968 Act. It is a sad commentary on the state of the Federal motor vehicle safety program, however, that NHTSA, through its recent posture of inaction, has stood the relationship between this Subcommittee and the vehicle safety program on its head.

It should be NHTSA, not this Subcommittee, that takes the lead in promoting standards and other actions to make vehicles safer, and crash deaths and injuries fewer. That is the clear, continuing mandate of the 1968 Act. A federal vehicle safety program whose guiding policies are based on indifference or even antipathy to vehicle safety regulation is little better than no program at all.

I will be happy to answer any questions at this time.

Senator BRYAN. Mr. Kelley, thank you very much.

The testimony of each of you is a rather sweeping indictment of the performance of the agency in recent years. Two measures that are included in this bill, judicial review and the time constraints, seek to by a legislative approach energize the agency into more energetic action.

My question to any one of the panelists who cares to respond: Is there anything else we can do? One senses that we are left in the syndrome that you can lead a horse to water, but you cannot make him drink. Unless we get an Administrator who is really committed to safety, all of the good intentions of this Committee and the other members of Congress and your own good efforts are not going to achieve optimum results.

Would you care to comment on that question? Anything else that we ought to look at in terms of measures that we can get a more aggressive performance? Ms. Claybrook?

Ms. CLAYBROOK. Well, first of all, you are going to have a nomination hearing for a new Administrator, and it certainly seems to me that that is an opportune time to try and make some kind of a determination as to whether or not the new Administrator has the interest of this agency at heart.

Secondly, it seems to me that a lot of this starts at the top, and one of the anonymous things that occurs in the rulemaking process is that the Office of Management and Budget makes a lot of decisions, but they never have to own up to it.

What I would suggest—and I know that Senator Danforth has done this occasionally in the past—is, ask the Office of Management and Budget to come down here and explain their position on the various issues.

Third, the Secretary of Transportation is obviously a very critical factor in this. He did make a speech at an insurance meeting several weeks ago in which he recognized that, if you had the same number of deaths in aircraft, which would be approximately one aircraft crash a day every day of the year, as you have deaths in auto crashes, which are much more anonymous and spread out across the country, that there would be some kind of revolt in this country.

I mean, I cannot imagine what the reaction of the public would be if we had an air crash every day. So I think that the Secretary of Transportation, who has responsibility for both, is another critical piece of this puzzle. And I think Elizabeth Dole did take some steps, not enough in my view, but some steps.

The other point is that this agency inside the Department of Transportation is really a different animal. The Department of Transportation is very hardware and money-oriented. It gives out large grants, has a lot of support from the highway constituency and the aircraft constituency, and so on.

And NHTSA is the troublemaker of the Department. It is the regulator and it is a public health agency, and it is a little bit of an oddball. And I think it needs support from the Congress and the kind of pressure that I know has been exerted in the past should continue to be exerted in order to help give the agency some priority in the decisionmaking process.

Senator **Bryan**. I appreciate your response.

Mr. Ditlow, let me ask you a question. We were just treated to some rather bizarre testimony, the first time I have heard it—apparently Senator Danforth has heard it before—but that this going from 2½ to five mile per hour on the standard of the bumper, that there is only a minute portion of traffic accidents in America that fit within this category, and if you keep your automobile ten years you save only $6.50 a year in terms of insurance premium benefit, offset by the higher cost of $93.

My initial reaction is to find that incredulous. Do you have any data to enlighten this Subcommittee as to whether or not that is in fact accurate information from your perspective?

Mr. **Ditlow**. Well, first of all, I would like to suggest that this is one standard I would like to be able to put up for a referendum across the Nation, because it would be overwhelmingly adopted by 90 percent of the American public for five mile per hour bumpers.

But in terms of the actual data, the NHTSA is simply wrong. They hypothesized that there would be certain fuel economy loss, there would be reductions in the prices of the vehicles, and that the number of collisions would be, so on and so forth.

And they were all hypotheses, and we took a look at just a few of them. For example, they gave just a very small token, perhaps five dollars, for consumer time and inconvenience. I simply do not think that those people take their cars in for estimates after low speed impact. We did a survey and we found that on average it took two hours to get three estimates before you could go get your vehicle repaired.

There is certainly time and inconvenience, loss of that, time off of the job. There is gasoline. They did not even take into account how much gas was burned in getting the estimate to get your car repaired, let alone taking it in and getting the car repaired itself. And we think that that more than offset the gas loss.

The other thing, though, is when we actually looked at what happened after the rollback, we saw the only thing that was projected to occur that did occur was that there were more collisions, causing more damages in crashes. We did not see any fuel savings. We went out and looked at cars that were identical but for five mile per hour bumpers versus 2½. They had the same gas mileage rating.

We looked at the sticker price. There was no difference in sticker price between the two.

So the benefits vanished and the only thing that came home were the increased costs to the manufacturers.

And what I would like to do is to be able to submit a short statement for the record detailing some of the things that we did back in 1982 when the standard was rolled back, where we actually looked at the dollar costs and why they were wrong.

Senator **BRYAN**. How about the insurance aspect? That I found to be essentially unbelievable. I mean, is there no insurance premium benefit to the automobile owner by having a higher standard once the vehicle is less likely to be damaged during collisions? The amount of damage would be reduced even above the five mile per hour bumper standard.

Mr. **DITLOW**. Mr. Felrice is simply wrong. There are some insurers that will give a discount based on the better bumpers on those cars. So there is an insurance saving.

One of the frustrations to the consumer is that sometimes, if you have what they call a "near five mile per hour bumper," that the cost of repair is only $300 versus $700. The consumer does not care too much about that difference, but it may be under the insurance deductible, so that the insurance rate does not see that because it is under the deductible level.

Senator **BRYAN**. Ms. Claybrook, you had a point?

Ms. **CLAYBROOK**. Well, I just wanted to mention, I think the point of view of the manufacturers in reducing the standard, which they fought very hard to reduce, the automobile manufacturers, was a cost saving to the companies.

And I was reminded—I had sort of forgotten about this, but in 1980 the President of General Motors came to the agency at a time when the companies were trying to cut costs because of a downturn in sales, and they said: We want to get rid of the bumper; it will save us about $40. And I said: Well, how can it save you money, because you are going to give that cost reduction to the consumer?

And they said: No, we would just absorb that. And I think that is the point that Clarence made. I just want to emphasize that in fact the consumer did not get the cost reduction when the bumper standard was reduced.

Senator **BRYAN**. If the Members will accord me one more question. That is, the thrust of Mr. Felrice's testimony suggests that to develop a side impact standard is so esoteric and arcane that it is something that cannot be done in a year or two.

Mr. Kelley, maybe you have a comment on that?

Mr. **KELLEY**. It has been more than a decade, Mr. Chairman, since under NHTSA's own funding projects were carried out, including the then very well-known research safety vehicle project, showing the technological alternatives for vastly improving the protection of occupants in side impacts.

That has been that same decade which I believe you mentioned earlier, Senator Danforth mentioned earlier, rulemaking has been talked about, pending, up in the air, but nothing has been done.

I disagree strongly with Mr. Felrice that there is some terribly complex challenge to be worked out before anything can be done in this area.

Ms. **Claybrook**. I would like to just say that I think Senator Danforth probably remembers this, but there was a pending rulemaking and it was put aside by the agency. It was actually withdrawn in 1982, and an advisory committee was set up in which the industry and the agency were going to do joint research.

Public Citizen sued under the Federal Advisory Committee Act saying that this arrangement excluded the public and was impermissible, and the agency then abandoned the advisory committee. And it was not until 1986 that they actually reproposed a standard.

I think that the issue is not technological. I think that the issue is an absence of a decisionmaking system.

Senator **Bryan**. Senator Danforth.

Senator **Danforth**. I would like to say that, Mr. Chairman, in further answer to your first question, is there anything that we can do, I think that there is. And I think that that was demonstrated when the Reagan Administration, under the leadership of Elizabeth Dole when she was Secretary of Transportation, put in place a passive restraint requirement that was believed to be impossible in that Administration.

And I think that the reason that was done was this Committee. I really believe that. I think that we made so much noise over such a long period of time about passive restraints that the Administration finally just gave in.

So I think that, in addition to legislating, which is important, hearings and any other kind of forums you can dream up. We had a million of them in the early eighties, and it really is very, very helpful.

Ms. **Claybrook**. You know, today—this month is the anniversary of the trap door, Senator Danforth, which you might remember. The trap door is the provision in the Dole standard that would allow state seat belt laws to potentially override the passive restraint standard, and on the 1st of April the trap door disappeared.

Mr. **Kelley**. I think, Senator Danforth, if I may follow up on your remarks, you are absolutely right that in the sector of government's responsibility this Subcommittee and Committee have been virtually the only place where the public has had an opportunity to see these issues ventilated.

And one of the things that distresses us very greatly is NHTSA's almost complete failure to use what we would call the bully pulpit, the strength of the Administrator's position, NHTSA's very name, Motor Vehicle Highway Traffic Safety Administration, to go to the public and educate it about these issues.

Rather than being aggressive, going to the media, going to the public, and informing people about the choices that need to be made and building a constituency, if that is what is needed, the agency seems almost to have gone into reclusion and seclusion and decided to talk to no one. Its occasional press release and its occasional statement are as grey and uninteresting as possible.

And yet, this is one of the most exciting health issue areas in the United States. We need an Administrator and a commitment to going out, if you would, as the Surgeon General, Dr. Koop, goes out and takes these issues to the public.

Senator **Danforth.** It really is. I mean, Joan said that she believed this legislation would save 3,000 lives. It was believed that air bags would save I think 9,000 lives—pardon?

Ms. **Claybrook.** 6,000 to 9,000 lives.

Senator **Danforth.** 6,000 to 9,000 lives. And then in addition to that, all the head injuries. I mean, the permanently disabling injuries and all of the heartbreak, not to mention expense, that that causes to families, that are saved by that device.

Mr. **Kelley.** During Joan's tenure as Administrator, the agency carried out a public education program based on the research safety vehicle. You will recall that was a vehicle funded with the taxpayers' money to show the technological ways to vastly improve car crashworthiness, while at the same time creating additional economies in cars, fuel savings, and attractiveness.

One of the tragic first steps of the Reagan Administration was to completely kill the research safety vehicle program and to kill all information about its results to the public. And I regard that as the single most tragic cessation of the generation of public understanding and support for what could be done.

We knew at that time it was possible to have small car crash protection in frontal barrier crashes up to 50 miles per hour with air bag systems that were properly designed. And yet today there is argument over a 30 mile per hour standard. Something is terribly wrong with that kind of a disjuncture.

Ms. **Claybrook.** Perhaps, Mr. Chairman, you might ask the agency to bring the car up to Capitol Hill and allow the new generation of Senators to visit with this car. It has been locked up in the DOT basement for eight years, and it is on the third floor.

We sent Secretary Skinner down to take a look at it the other day, urged him to go and actually he did. So I think that vehicle is still there, and it is an example of an integrated safety vehicle with emissions and fuel economy provisions. And there are many reports and studies and evaluations of it.

17 of these cars were manufactured. 15 were crash-tested by different experts in different countries around the world, and all of those reports generated information. The car was taken on a 52-city tour in 1978 and 1979, widely viewed by the public at this time.

Maybe we need to pull it back out again.

Senator **Danforth.** Can I ask a question? Mr. Kelley did not have a chance to answer the question on the decorative bumpers, and I remember very clearly your testimony and the films you showed and so on. Would you like to respond to Mr. Felrice's views on the five mile versus 2½ mile bumpers?

Mr. **Kelley.** Well, with all due respect to Mr. Felrice personally, his views are absurd. The five mile per hour bumper has been more than substantially well justified by the data made available by the Insurance Institute for Highway Safety, by NHTSA's own data, and by data presented to this Committee and other committees of Congress.

I would mention, following up on the earlier discussion, that there are other ways in which insurance reflects benefits to the consumer of a higher bumper performance standard. And that is that the overall rating of vehicle performance depends on damageability claims by car owners to insurance companies.

The more those claims are reduced—and they are dramatically reduced by better bumpers—the lower the overall premium base rating is. And I am sure Mr. O'Neill of the Insurance Institute for Highway Safety, with whom I slogged through the fields of the bumper fight for more than a decade, will have more to say about that.

Senator **Bryan**. Senator Gorton.

Senator **Gorton**. Ms. Claybrook, I am looking at your testimony here and I find very intriguing the statement that a very simple addition, just one inch of padding on the A-pillar and roof headers, could reduce head injuries by up to 50 percent at 20 mile per hour impact speed.

I would like you to amplify that statement a little bit if you will, and maybe answer two questions which relate around it: Is it implied by that example that at an impact speed of much more than 20 miles an hour extra padding just does not matter, that is too fast in crash speed, and those extremely serious injuries or death are going to take place any way?

And how many such impacts are there? 50 percent is a dramatic reduction, but 50 percent of what? And what is the source of that information?

Ms. **Claybrook**. All of the data in my statement comes from studies done by the National Highway Traffic Safety Administration.

And no, there is no implication that at higher speeds it does not also help. It is just that the analysis of the greatest impact that you could have or the greatest protection you could have from additional padding would come in low impact crashes, moderate to low impact crashes. At higher speeds, padding helps, but it does not help as much. So that was the study that was done by the agency itself.

In side impact crashes—what NHTSA has done is evaluate where the most death and injury occurs. Approximately 55 percent occurs in frontal crashes and about 25 percent, if my memory serves me right, or 20 percent occurs in side impact crashes.

It is the second largest area, along with pedestrians. There are 8,000 people killed in side impact crashes a year. There are 25,000 who are seriously, seriously injured. So the numbers are large.

And for the crashes at 20 miles an hour or less, I do not have an exact number, but it is a very significant number of such crashes.

And I would point out that one of the areas that is relatively unexplored in our medical field is the trauma of low impact head injury, of minor head injury or medium head injury. We really do not completely understand it, but a lot of people have been damaged.

There is a very fine piece of work that was done at the University of Virginia Medical School by a researcher there, estimating that as many as one-third of the low impact head injuries—that is, a concussion type head injury—could have a significant impact on job performance in the future.

So the reason that I mention this is that padding is something that is very simple to do. It is not like a big structural change. It is an add-on. You can put it on any time. And I think that this particular item was so stunning to me that I felt it worth putting in a fairly short statement.

Senator **Gorton**. Thanks for that explanation.

As you know simply from reading the newspapers, sometimes some of these accidents come very close to home, and they have with this Committee the night before last with Senator Gore's son.

You talk about actions which we could take to lessen injuries cased from pedestrian crashes with cars. Would you go into that a little bit further? Is it something we can and should address in this bill, and what kind of costs would be connected with the kind of actions you would like us to take?

Ms. **Claybrook**. Well, I think that the cost is fairly insignificant if you had the prescriptions for designing the car to accommodate pedestrian accidents in the very beginning. If you design the car that way initially, the cost——

Senator **Gorton**. What do you mean by that? What kind of design features?

Ms. **Claybrook**. What you want to do is, first you want to have the front completely clear of sharp objects. Even today, hood ornaments are being put on cars, for example, and hood ornaments are at about the height of Senator Gore's son's head.

So that is the reason that back in 1968, I believe, Bill Haddon, the first Administrator of this agency, initiated a rulemaking proceeding to get rid of hood ornaments. And the industry voluntarily took them off. The standard was never issued and now they've put them back on. So that is one thing you would want to do.

The other thing you would want to do is to design the hood so that the engine and other components of the engine compartment are a little bit lower down, so that when the pedestrian comes and hits the hood, which is often the case, that they will come down and not hit a hard surface immediately, and in fact it might even act a little bit like a basket.

So that instead of the pedestrian being shot back off the car or over the top of the roof, the pedestrian will be cupped in a basket-like arrangement on the car.

These are all designs that would affect 20 mile an hour crashes and below, and the agency during this period when very little rulemaking has gone on has done a lot of research.

We initiated—just before I left the government, we initiated a proposed regulation for pedestrian safety, which has been inert since then, and it dealt with knee injuries and very small children injuries at the lower level of the front of the car.

But I am talking about not only that, but the hood itself and the whole front of the car.

Senator **Gorton**. Should this legislation be changed to accommodate that need, or is that something we simply need a good Administrator for and encouragement from a Committee like this?

Ms. **Claybrook**. Well, I think that you ought to put a provision in this bill. I have urged it in my testimony. I think you should probably have a little bit longer lead time in the amount of months that you allow for action, because it is less well developed.

But a lot of research has been done on protecting pedestrians at low impact speeds, 20 miles an hour and below. That is where most pedestrian accidents occur. And so I think a significant amount of savings could be achieved.

In Europe most cars, and in Japan as well, have better pedestrian designs than ours, but they still do not do as much as they could.

Senator GORTON. I am about to run out of time and I want to get one more question to all of you if I may. You have answered that one satisfactorily.

One matter that the Chairman and I went over as we were working on this bill was this tremendous disparity in seat belt use, and we have attempted to address that in the bill. I would like any or all of you to comment on whether or not you think the incentive programs in the bill will have any impact on seat belt use, and what kinds of programs in general will increase that use, especially in these states which seem to be lagging so far behind?

Mr. KELLEY. I think, Senator, that the provisions of your bill will make a contribution. I think there are other elements that need to be introduced.

It is important to recognize that state seat belt use laws that have primary enforcement, rather than secondary enforcement provisions, seem to work more effectively than the other kind, that is in which non-use of the belt is in and of itself a violation. The policeman can pull you over and ticket you for not wearing the belt.

In the secondary violation states, you must be ticketed or stopped for some other reason before you can be punished or given a citation for not wearing a belt. That seems to have made a great difference.

The other great difference will be in the continuing commitment of states to make enforcement of these laws highly visible. A belt use law that kind of disappears from the awareness of the policemen and the public becomes no belt use law at all, and it is very easy for it to become a non-enforced piece of legislation.

So it is highly important that states and the Federal government continue to commit time, effort, and publicity to the perception that these laws mean business and people will be ticketed for not using these, for not complying with these laws.

I think another element is there needs to be a good deal of honesty with the public about restraint systems, and up to now we have not seen that. As I said in my direct statement, not all restraint systems are the same. They vary in their effectiveness, they vary in their utility, and the public needs to be aware of what restraint systems perform in what ways.

For instance, we have been very critical of seat belt designs, and there are many on domestic cars, that allow slack to be introduced into the belt, so that in a crash the user, rather than having a snug belt, has a belt that is hanging loose. And this can very substantially increase the likelihood of death or injury in the impact.

The public needs to be warned about these devices, and they need the opportunity to have them removed. And in addition, these devices need to be banned from future cars by Federal performance standards, something that the Committee may wish to look at.

The public also needs to know that, whether you are belted or not, the very best restraint system is an air bag system. And I am afraid that message has not been aggressively given to the public at large.

It is good news that the automobile fleet, we are told, will have air bags in up to 60 percent of new cars by 1990 on the driver's side. I think it is very disturbing news that 40 percent of the new cars at that point will not have air bags in any position and many more will not have them in the passenger position, because the air bag, with or without the belt, is the most important single restraint system incrementally that has ever been introduced.

All these steps will be and could be taken by a committed NHTSA Administrator with a strong Administration behind him or her, and we have not seen that up to now.

Senator GORTON. Thank you, Mr. Chairman.

Senator BRYAN. Thank you very much, Senator.

And my appreciation on behalf of the Subcommittee to each member of the panel. We appreciate your testimony and your response to our questions.

We will now move to the second panel: Mr. Albert J. Slechter, Federal Government Affairs Director, Chrysler Motors Corporation; Mr. Robert Munson, Director, Automotive Safety Office, Ford Motor Company; Mr. Robert A. Rogers, Director of the Auto Safety Engineering Division for General Motors.

Gentlemen, if you will join us, please, at the witness table.

We will begin the testimony of the panel with Mr. Slechter—did I pronounce that correctly, "SLEK'-TER"?

Mr. SLECHTER. "SLEK'-TER."

Senator BRYAN. Slechter. Mr. Slechter, we will hear from you first.

STATEMENT OF ALBERT J. SLECHTER, FEDERAL GOVERNMENT AFFAIRS DIRECTOR, CHRYSLER MOTOR CORP.

Mr. SLECHTER. Thank you, Mr. Chairman.

I am Al Slechter Federal Government Affairs Director for Chrysler Motors Corporation's Washington office. Chrysler appreciates the opportunity to participate in this hearing and share our views on the draft legislation, as well as some general observations on NHTSA's performance in administering the highway safety programs.

In this brief period, I will limit my comments to only portions of the draft legislation, but I am prepared to answer questions on the remaining issues.

In contrast with earlier administrations, Chrysler believes the agency has made important strides in the last four years in raising the consciousness and priority of the key driver behavioral factors which play such an important role in the safety of our highways.

These are, of course, seat belt usage and drunk and drugged drivers. NHTSA's efforts in providing resources and a national focus to these problems have contributed significantly to reducing the fatality rate on our highways from 3.4 deaths per 100 million vehicle miles in 1980 to a rate of 2.41 in 1987, the last officially reported year.

Joint efforts by government, industry, and concerned consumer groups have resulted in the passage of 33 mandatory seat belt use laws, which cover over 84 percent of the U.S. population. Seat belt usage has increased to 52 percent in areas covered by these laws and to 37 percent in areas not covered by them, as contrasted with a national level of only eleven percent in the late 1970's.

We at Chrysler know of no more cost effective means to reduce vehicle deaths and injuries than the simple act of wearing available occupant restraint systems, nor is there any excuse for failure to do so. Even as automatic restraints become universally available in new cars next year, we must continue to press for 100 percent safety belt use to take advantage of the available protection of these systems.

Another important act by the Administration was its decision on automotive restraints—or automatic restraints, which is allowing the auto industry to phase in these systems over several years and to optimize the use of our engineering resources toward an orderly implementation of automatic restraints in passenger cars.

For Chrysler, this phase-in program has greatly reduced the uncertainties associated with an all at one time approach. As a result of this flexibility and other factors, Chrysler will equip all of its 1990 model year U.S.-built passenger cars, approximately 900,000 vehicles, with driver side air bags, and we are in advanced stages of development of passenger side air bags to be phased into our products selectively by 1994.

Turning now to specific proposals in the draft legislation, many address a mandatory regulatory schedule for vehicles in one or more of the following categories:

The first category is one in which NHTSA is already well along toward a final regulation, such as for vehicle reclassification and for head restraints for multipurpose vehicles.

A second category is one in which virtually all vehicles are already designed to provide the prospective safety performance, such as roof crush resistance for light trucks and MPV's.

In the third category, Chrysler is already on record with a phase-in plan for the safety performance item voluntarily, ahead of any schedules that would result from appropriate rulemaking. This is the case for head restraints for MPV's, which I mentioned earlier, and for rear seat shoulder harnesses.

The proposed September 1, 1990, effective date in the draft legislation for rear seat shoulder belts is not feasible for all Chrysler, or I should say a few, Chrysler products, particularly convertibles and some MPV's, but we will have all vehicles equipped by the 1992 model year.

In the fourth category, there is a substantial amount of technical work remaining which cannot be completed in the proposed twelve-month regulatory time frame, and I think you have already heard much of that this morning. This is the case for improved side impact performance of passenger cars and also for rollover standards.

And finally, the category where there is no evidence to support the need for a specific new safety countermeasure, as in the case of side impact protection for light trucks and MPV's, which as a class are demonstrating the lowest levels of serious and fatal side impact injury in actual on-road experience.

Chrysler opposes in principle Congressional mandating of NHTSA rulemaking schedules. In some instances, we can cite no strong reason for taking exception to mandatory regulation, as in the first three categories, except to argue that the need is not compelling. Regulation in the absence of need is wasteful of both government and industry resources.

For categories four and five, however, we believe that rulemaking at this time is inappropriate.

The proposed legislation would require NHTSA to commission a study by the National Academy of Sciences to explore the feasibility of a crashworthiness rating system. The concept of such a system is not new, nor are our arguments that a system that provides information related to real world crash experience is unlikely to emerge.

Starting from a base where new vehicles already comply with all Federal motor vehicle safety standards for crashworthiness, two factors play an overwhelming role in the relative crashworthiness of all vehicles. They are: one, whether or not the available occupant restraint system is being used; and two, the overall weight or mass of the vehicle.

It is difficult to foresee any rating system that would differentiate between the relative crashworthiness of vehicles of similar weight with restraint systems in use.

With regard to bumper performance, all 1990 model year Chrysler Motors passenger cars will include bumpers that provide damage protection at the five mile per hour level, but we believe it is unnecessary to regulate to that level for all future models.

The proposal to increase the bumper standard test speed to five mile per hour from 2½ ignores the conclusions of NHTSA's 1982 determination, after considerable public comment and analysis, that the most cost effective level for the standard is 2½ mile per hour. This standard level does not deter manufacturers from providing higher speed bumper damage prevention performance, which is occurring due to competitive pressures.

But it is a level that provides us the flexibility to trade off some bumper performance against other design attributes for particular vehicles.

That completes my testimony, Mr. Chairman. I would be happy to answer any questions you may have.

[The questions follow:]

QUESTIONS OF SENATOR BRYAN

RESPONSE FOR POST-HEARING QUESTION #1

> **Since 1982, has there been any demonstrable change in the sticker price of your company's vehicle, or any change in consumer fuel costs, which is attributable to the reduction of the bumper standard from 5 MPH to 2.5 MPH? Please provide all information in your possession demonstrating or relating to any change in vehicle sticker price or change in fuel costs that has been directly available to the consumer as a result of the 1982 reduction of the bumper impact standard from 5 MPH to 2.5 MPH.**

Following the NHTSA's amending of Part 581 - Bumper Standard in May of 1982, we changed over to reduced-cost bumpers early in the 1983 model year on some models and at the start of the 1984 model year on others. The product cost reduction effects of these changes then were incorporated, along with many other factors, in the final pricing determinations. Since the prices of these models actually increased from one model year to the next (for reasons unrelated to bumpers), the consumer benefit can best be characterized as a foregone price increase. In other words, the price increase was lower than it otherwise would have been because a portion of the increase was reduced by lower cost bumpers. Therefore, there were no changes in published retail prices for our vehicles directly attributable to the 1982 revision to the bumper regulation.

We have not retained detailed fuel consumption data for the 1982 and 1983 model year cars and therefore a comparison cannot be calculated. However, based upon the average weight reduction in the affected 1983 models, we estimate the fuel cost savings to be $0.50 per year for the average driver.

RESPONSE FOR POST-HEARING QUESTION #2

> **Please provide any information in your possession relating to any increased costs which your company would incur should the 1982 5 MPH bumper standard be reinstated. Include in your answer your best estimate of the dollar value of any such increase. Please indicate what portion of those costs would be passed along to the consumer.**

Our 1990 model year domestically produced passenger cars will have bumper systems that provide damage protection at the 5 mph level. We are able to provide this protection by selecting a technology which is targeted to nominal 5 mph performance, and optimized for cost and carline application. However, if the 1982, 5 mph bumper requirements were reinstated, the bumper systems on those vehicles would probably have to be modified to provide a higher level of protection, in order to assure that each car we manufacture complies with those laboratory test requirements. These changes could not be accomplished for the 1990 or 1991 model years.

Our best estimate of the cost of equipping our cars with 5 mph - Phase II bumper systems is an average $16.00 per car consumer cost increase. This retail price equivalent (RPE), takes into consideration both the variable and fixed costs directly associated with the component(s) as well as a share on non-allocated corporate fixed costs and profit in proportion to variable cost. This results in a "wholesale price equivalent." To the wholesale price is added dealer markup, resulting in the reported RPE. While the RPE is a mathematically calculated cost, the actual price of the vehicle at the time of introduction is dependent on competitive criteria.

We point out that the engineering cost of such a change in requirements is significant. As you are aware, all of our 1990 model year U.S. built passenger cars will be equipped with supplemental driver side airbags and any modifications to front bumper systems on these cars will require recalibration of airbag crash sensors, and possible recertification of barrier impact performance. We estimate that at least 20 months prior to start of new model production would be required to provide 5 mph, Phase II bumper systems on all of our cars. Since this additional work and associated costs will have no apparent benefits for our customers, it will be difficult to justify the necessary price increases; however, we would have no choice but to pass the costs along to the consumer.

We continue to believe that there is no need to impose more stringent bumper damageability requirements. The current 2.5 mph test requirements provide a cost effective minimum level of performance for all passenger cars while allowing manufacturers to design and develop bumper systems capable of resisting higher speed impact to satisfy marketing needs and other variable factors on a voluntary basis. This system is working well, as evidenced by the number of carlines which are being equipped with bumpers capable of impacts at speeds greater than 2.5 mph with little or no vehicle damage.

RESPONSE FOR POST-HEARING QUESTION #3

> **Your company opposed the provision in S.673 setting a time limit for the filing of petitions to reduce CAFE standards on the grounds that market conditions cannot accurately be predicted 2 years in advance. How far in advance can they be predicted? What lead time for the filing of these petitions is appropriate? If you have filed such a petition between 1986 and the present, how far in advance of the model year to which it applied was each such petition filed?**

It is difficult for an auto manufacturer to predict CAFE performance in advance because fleet fuel economy is highly dependent on unpredictable market fluctuations. Any procedure which allows for changes in CAFE standards through the petition process must be structured taking this into consideration. We believe, however, that this matter is more appropriately a subject for consideration outside of S.673 in other legislation that addresses a broader range of CAFE and other energy conservation issues.

RESPONSE FOR POST-HEARING QUESTION #4

> **Your company has testified that 1 year is an insufficient time to permit the formulation of an adequate side impact standard. What is your best estimate of the time period necessary for formulation of an adequate standard?**

We recognize the need for improved side impact protection in passenger cars. However, the side impact requirements proposed by the NHTSA do not meet this need. Automotive manufacturers world-wide are essentially unanimous in their criticism of the proposed test dummy and acceleration-based injury criteria. Analysis indicates that their use could lead to vehicle designs which while meeting the criteria, would not improve side impact protection in real world accidents. Much work must be done to correct these shortcomings, including the development of a more human-like test dummy and compression-based injury criteria. We are unable to estimate the time period necessary for this activity because, in essence, it requires invention, and invention cannot be done according to a timetable.

RESPONSE FOR POST-HEARING QUESTION #5

> **Mr. Ditlow of the Center for Auto Safety testified at the Subcommittee's hearing on April 5 about a study showing that 87% of consumers believe that airbags should be standard equipment on all new cars. Do you agree with this data? What role does consumer preference play in your decision about whether to equip your vehicles with airbags? Given the proven safety advantages of airbags, under what circumstances would you decide to make airbags standard equipment on all your passenger cars? On all your light duty vehicles?**

Chrysler disagrees with the 87 per cent figure that Mr. Ditlow cites as the percentage of consumers who believe that airbags should be standard equipment. In a recent study conducted by Lawrence Research of Santa Ana, California for the MVMA, only 62% of those polled indicated that they had heard of airbags and approved of them. Of the remainder, 11% disapproved, 22% had no opinion, and 5% had not heard of them. In our opinion it would be too optimistic to presume that all the "no opinion" and "had not heard of" groups would overwhelmingly endorse airbags as standard equipment. In fact, the 62% who approved of them do not necessarily endorse them as standard equipment.

While Chrysler would like to think that the American consumer wants airbags as standard equipment since that would support our passive restraint implementation plan, our own marketing surveys show only a 40% to 60% preference for supplemental airbags over either passive seat belts or manual seat belts.

Furthermore, when the issue of cost is raised with consumers, the approval rate diminishes. At "no cost" acceptance may approach the 60%-80% figure, but at $800, the approximate price of the GM and Ford optional systems, the purchase rate is less than 10%. Even when the system is priced at its cost to the manufacturer, less than 50% are likely to purchase it as an option. As a standard feature, Chrysler will recover as much of the cost as the market and prudent business judgement will allow.

Customer preference has played a large part in our decision to make supplemental driver airbags standard on our 1990 model year, domestically made passenger cars. It also will play a major role regarding the type(s) of passive restraints installed in the other light duty vehicles we manufacture, should we decide to do so.

RESPONSE FOR POST-HEARING QUESTION #6

> **Please provide any and all data in your possession addressing the issue of whether a correlation exists between vehicle width-to-height ratio and the accident rollover rate.**

The NHTSA collects accident data and creates data bases like FARS, NASS, and CARDfile. Such data bases contain information on vehicle crashes but do not contain information on the exposure of vehicles to crashes. To compute a rollover rate one needs data that accurately identify rollover accidents for a numerator and data that reflect the exposure to such accidents for a denominator. Chrysler is not aware of a source of adequate exposure data to allow computation of a valid rollover rate that would allow meaningful comparisons to be made among vehicles.

Several recent studies have defined rollover rate as either rollover crashes per registered vehicle or rollover crashes per crash (usually single vehicle crashes). These measures are not adequate for vehicle comparisons. Using registered vehicles as the denominator requires the assumption that all registered vehicles are used the same amount, under the same conditions, and by similar drivers. This is not true. Using crashes as the denominator requires the assumption that all vehicles are exposed to the same pre-crash factors and are involved in the same type of crashes. This is also not true. The recent studies also have significant limitations because of data inadequacies and errors in the application of statistical methods.

The question refers to vehicle width-to-height ratio. We believe that reference to the ratio of half the track width to the center of gravity height (T/2h) was intended. Chrysler is not aware of data that establish that a meaningful correlation between rollover rate and T/2h exists. It is likely that some correlation exists and may be due in part to vehicle factors. It is also likely that T/2h is a covariate for some human and environmental factors as well as other vehicle factors. Correlations between the rollover rate and human and environmental factors are also highly likely to exist. However, it is improper to focus on a correlation between the rollover rate and T/2h alone and not simultaneously consider correlations with other relevant factors. At present, no data or study have established a relationship between T/2h and rollover crashes that has practical significance.

RESPONSE FOR POST-HEARING QUESTION #7

> **Mr. Ditlow testified that, between 1982-86, there were 37 vehicle defect investigations in which NHTSA asked manufacturers to recall a vehicle, the manufacturers refused, and NHTSA did not proceed to enforce the recall. Under what circumstances does your company refuse a recall request from NHTSA? Has your company refused to comply with recall requests more frequently in 1982-86 than in prior years? Please provide information about the results of each case listed in Mr. Ditlow's testimony at p.2 that relates to a vehicle manufactured by your company.**

Chrysler's position regarding safety related issues has consistently been that action is taken when our assessment indicates a risk to motor vehicle safety exists. Our view in this regard has not changed prior, during, or subsequent to the referenced time period.

Chrysler has not proceeded with a NHTSA requested action when the subject condition clearly does not present an unreasonable risk to motor vehicle safety as referenced by the Motor Vehicle Safety Act. If in fact we become aware of an issue which is a risk to motor vehicle safety, we begin preparation for a recall without waiting for an opinion from NHTSA. If we believe that there is not a risk to motor vehicle safety, then we present the evidence to the agency, and in those instances the matter is usually closed. It is only the rare case, where our view differs from the agency on the risk, that we would oppose a recall request.

Chrysler has not been able to obtain, in the short time frame available, a copy of Mr. Ditlow's testimony.

RESPONSE FOR POST-HEARING QUESTION #8

> **Please list all research available to you about pedestrian safety, including vehicle design to minimize pedestrian injury. Include in your response the dates of such research, the authors of such research, a summary of the results, and any action taken by your company based on such research.**

Chrysler has not conducted any specific research on this subject, although we are aware of work which has been conducted by the NHTSA and others. In Europe, where the number of vulnerable road users (pedestrians and cyclists) is even greater than in the U.S., research has been under way for many years in this area, and reports on the latest efforts will be given at the Experimental Safety Vehicle Conference in Sweden in May, 1989. In general, efforts aimed at modifications to the vehicle appear to hold very little promise in reducing serious injuries. In our opinion, the most cost effective way of reducing these deaths and injuries is to separate these road users from motor vehicles.

RESPONSE FOR POST-HEARING QUESTION #9

> **Please list all research available to you about prevention of head injury due to changes in a vehicle's "A" pillar. Include in your response the dates of such research, the authors of such research, a summary of the results, and any action taken by your companybased on such research.**

Chrysler has not conducted or sponsored any specific research on this topic. We are aware, however, of some conflicting opinions in this area. On one hand, padding is recognized to reduce the severity of a head blow. However, some researchers believe that too much padding may actually catch or trap the head, while the mass of the body keeps moving. This forces the neck to absorb all of the load, which could result in even more serious injuries.

RESPONSE FOR POST-HEARING QUESTION #10

> **Testimony from automobile manufacturers at the Subcommittee's hearing seemed to indicate that many multipurpose vehicles have voluntarily been brought into compliance with the roof crush standards applicable to passenger cars. What assurance can you provide that such standards would be voluntarily maintained in the absence of NHTSA's issuance of a motor vehicle safety standard?**

Tests that we have conducted on the multipurpose passenger vehicles (MPV's) we manufacture indicate that all except the Jeep Wrangler (see below) meet the passenger car roof crush requirements set forth in MVSS 216 - Roof Crush Resistance. In addition to the Jeep Wrangler, our MPV models include the Plymouth Voyager, Dodge Caravan, Dodge Ramcharger, Dodge Ram wagon, Jeep Cherokee/Wagoneer and Jeep Grand Wagoneer. We point out that in addition to these MPV models, our Dodge Dakota, Dodge Ram, and Jeep Comanche pickup trucks meet the passenger car roof crush requirements. We plan to continue to meet the passenger car roof crush resistance requirements on any new MPV's that we may manufacture. Therefore, we see no need to impose on the government and the industry the complexity and costs associated with mandating a level of safety performance which already exists.

The Jeep Wrangler, on the other hand, is an open body type vehicle with a foldable windshield and removable occupant compartment top. In view of this configuration, consideration would not normally be given to conducting roof crush tests on such a vehicle for the same reasons that the requirements of MVSS 216 have not been applied to convertible passenger cars. However, this vehicle is equipped with a roll bar which is designed to provide some rollover protection. We believe that the various structural tests that were conducted during the development of this vehicle indicate that the load carrying performance of the roll bar on this vehicle is equivalent to that specified by MVSS 216.

Senator **Bryan**. Thank you very much, Mr. Slechter.

Mr. Munson.

STATEMENT OF ROBERT H. MUNSON, DIRECTOR, AUTOMOTIVE SAFETY OFFICE, FORD MOTOR CO.

Mr. **Munson**. Thank you very much. Mr. Chairman, Senator Danforth, Senator Gorton:

Ford appreciates the opportunity to share its views on highway safety and to comment on the National Highway Traffic Safety Administration Authorization Act of 1989. Ford is also proud to play a role in further improvements in highway safety.

We were the first U.S. automobile manufacturer to offer a new generation supplemental driver side air bags on moderately priced vehicles, the Ford Tempo and Mercury Topaz. We are the only U.S. automobile company today to offer both driver and passenger side supplemental air bags that are standard on the Lincoln Continental.

Ford will produce approximately one million cars with supplemental driver air bag systems in the 1990 model year, and a number of these vehicles also will be equipped with supplemental passenger side air bags.

I would like to point out that the current version of Standard 208 has played a critical role in affording consumers a wide choice of restraint systems, by providing time for the manufacturers to phase in these technologies. The phase-in period also has helped provide Ford and other manufacturers sufficient time to work with suppliers to develop the necessary component production capacity.

Turning to some of the specific issues addressed in the legislation that is being considered by the Subcommittee today: Side impact performance. S. 673 would require that NHTSA issue a final rule to improve occupant protection in side impact collisions. The NHTSA has already proposed such a rule, but to date the NHTSA and the automobile industry have not been able to develop a side impact test procedure or performance criteria that correlates to real world conditions.

We are concerned that legislation requiring NHTSA to meet a specific deadline could result in procedures and criteria that do not provide meaningful measures of occupant protection.

Ford is vigorously pursuing research into improved side impact protection for our products. We are also actively involved with the European automobile industry in the development of common side impact standards. We believe that legislation requiring NHTSA to meet a specific deadline could force a premature rule and could preclude harmonization of side impact requirements between the United States and Europe.

Without a common standard, it could be more difficult to market U.S. products in Europe.

Senator **Danforth**. And vice versa?

Mr. **Munson**. Yes.

Under light truck safety, Ford supports the development of light truck and multipurpose vehicle safety standards that are equivalent to standards that have been developed for passenger cars. But we do not believe that this can be achieved by an automatic extension of passenger car standards to light trucks and MPV's, especially considering that the criteria and test procedures for some of these standards have been tailored to passenger cars.

Currently, most of the Federal motor vehicle safety standards and regulations that apply to passenger cars also apply to light trucks and MPV's. In some instances, Ford truck specifications already meet or exceed the Federal safety requirement standards, performance standards, applicable to passenger cars, even though FMVSS requirements differ or may not apply to light trucks or MPV's.

For example, the roof crush resistance of Ford's light trucks, vans, buses, and utility vehicles already meet or exceed the roof crush standards applicable to passenger cars. And prior to the issuance of a proposed rulemaking to include head restraints on certain light trucks and multipurpose vehicles, Ford decided to include head restraints on its future light trucks, buses, vans, and utility vehicles which have a GVWR of 10,000 pounds or less, by the 1992 model year.

And we will continue to offer new vehicle technology where we believe there are real safety benefits for consumers. For example, rear wheel anti-lock brakes are now standard equipment on the Ranger, Bronco, Bronco II, and F-Series trucks, in addition to some passenger car lines.

The NHTSA currently has rulemaking or extensive research under way in all areas identified in the proposed legislation. Ford believes that the administrative rulemaking process has been an effective method of establishing appropriate safety standards and that continued use of this process will result in the development of the most effective safety measures for multipurpose vehicles and light trucks.

On rollover standards, we are currently concerned with the proposal to accelerate rulemaking on multipurpose vehicle rollover standards. The NHTSA currently has research in progress concerning vehicle rollover stability and has a subcommittee of the Motor Vehicle Safety Research Advisory Committee studying this issue as well.

Vehicle stability is a very complex issue and it is unlikely that the NHTSA will be able to complete its research and develop a practicable and objective method for determining a vehicle's susceptibility to rollover within one year of the enactment of this bill.

On rear seat belts, Ford voluntarily began installing rear lap and shoulder belts in the 1985 model year and currently provides them on most of our car lines. We plan to install rear lap and shoulder belts on all passenger car lines before the effective date proposed in the NHTSA rulemaking now in progress.

We also plan to install lap and shoulder belts in all multipurpose vehicles and light trucks through a phase-in to be completed by the 1992 model year.

With respect to multipurpose vehicles, the proposed effective dates in the legislation and the NHTSA rulemaking do not agree. Ford would be unable to meet the September 1st, 1990 effective date proposed in the legislation because of very complex engineering and lead time issues.

With respect to a five mile per hour bumper standard, when the standard was revised to 2½ mile per hour Ford decided to retain five mile per hour front and rear bumper systems on all of our car lines as a consumer feature and a marketing advantage.

The fact that other manufacturers also have decided to equip their cars with five mile per hour bumpers demonstrates that market forces are effective in bringing about change to these types of products.

As far as crashworthiness ratings, if a crashworthiness rating system is to be mandated by legislation, we agree with the precaution of asking the National Academy of Sciences to study whether a meaningful and reliable system can be developed.

On CAFE Petitions, we have a serious concern with the proposal that would require a manufacturer to file any petition for CAFE adjustments at least 24 months before the start of the model year.

Market conditions cannot be accurately predicted two years in advance of production, and history shows that market conditions are the primary reason for such adjustments. If this requirement were adopted, the petitioning process would become much more complicated. Automobile manufacturers and the government would be forced to look at all possible scenarios two years in advance of production. Petitions would have to be filed whenever it appeared possible that the standards would not be met.

In closing, I would like to note that Ford believes there are still opportunities for improving the safety of our highways, and that efforts should continue on all three parts of the safety system—the driver, the highway environment, and the motor vehicle. For our part, Ford will continue to work actively with the subcommittee, NHTSA and others to support actions that will provide real improvements to highway safety.

Thank you for providing Ford with this opportunity to discuss our views on highway safety and the subcommittee's proposals.

And that concludes my testimony, Mr. Chairman. I will be happy to answer any questions that you may have.

[The questions follow:]

QUESTIONS OF SENATOR BRYAN AND THE ANSWERS THERETO [1]

Question 1. Since 1982, has there been any demonstrable change in the sticker price of your company's vehicles, or any change in consumer fuel costs, which is attributable to the reduction of the bumper standard from 5 mph to 2.5 mph? Please provide all information in your possession demonstrating or relating to any change in vehicle sticker price or change in fuel costs that has been directly available to the consumer as a result of the 1982 reduction of the bumper impact standard from 5 mph to 2.5 mph.

Ford Response

As Mr. Munson's testimony at the April 5 hearing indicated, Ford Motor Company retained 5 mph front and rear bumpers on all of its car lines as a customer feature even though the standard was amended to require only 2 1/2 mph bumper systems. Obviously, because Ford did not revise the bumper systems to the 2 1/2 mph impact level, there was no notable change in the sticker price of our vehicles attributable to the change in the standard. For the same reason, there was no significant reduction in consumer fuel costs as a result of that change. However, Ford implemented extensive vehicle weight reduction programs on various carlines, either by redesigning the bumper systems or employing new lighter weight bumper materials as new vehicles were developed, to offset the initially higher weight of the 5 mph bumper systems.

Question 2. Please provide any information in your possession relating to any increased costs which your company would incur should the 1982 5 mph bumper standard be reinstated. Include in your answer your best estimate of the dollar value of any such increase. Please indicate what portion of those costs would be passed along to the consumer.

Ford Response

If the 1982 bumper standard (commonly referred to as 5 mph, phase II - limited damage to bumper face bar) were reinstated, which we do not deem necessary, we believe that the bumper systems on some current Ford vehicle lines would meet the standard. However, we believe that in order to meet the unrealistic Phase II test criteria, the bumper systems on some of our vehicle lines would have to be redesigned, either by using new components or new materials, leading to increased costs. Because we do not measure compliance to the Phase II criteria during our 5 mph bumper testing procedures, we can not accurately estimate these costs without a physical retest of all our vehicles. The additional initial cost would have to be passed on to consumers, who already would bear the increased costs of repair should the bumper become damaged in a collision greater than 5 mph. We continue to believe that any additional costs required to achieve Phase II level bumpers systems will not be recouped through lower insurance rates or repair costs for consumers and that competitive market forces are effective in initiating improved bumper systems.

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[1] The attachments referred to are in the committee files.

> Question 3. Your company opposed the provisions in S.673 setting a time limit for the filing of petitions to reduce CAFE standards on the grounds that market conditions cannot accurately be predicted 2 years in advance. How far in advance can they be predicted? If you have filed such a petition between 1986 and the present, how far in advance of the model year to which it applied was each such petition filed?

Ford Response

The CAFE law currently provides that the Secretary may reduce the standards at anytime if consideration of the statutory criteria so requires. This provision recognizes the variety of factors (e.g., market preferences, fuel prices, competitive pressures, interest rates) which influence CAFE and which manufacturers have little ability to influence or predict. NHTSA has taken the position that any petition to reduce a standard must be received in time so that any required NHTSA action will be completed prior to the beginning of the model year. This, in effect, imposes a 6-month lead time requirement on petitions to reduce a standard.

In 1986, Ford filed a petition which was granted by NHTSA for the 1986-88 model years. That decision and Ford's request were based upon our substantial efforts to meet 27.5 mpg which were partially offset by the market changes. For example, the assumptions inherent in the standard, such as fuel price (e.g., up to $2.50/gallon), market mix (e.g., diesel penetration up to 20%), and customer demand (e.g., tradeoff of reduced performance for fuel economy, and elimination of the large car market) did not occur. Such factors have significantly impacted our compliance ability over the past several years, despite taking all reasonable technical and marketing incentive actions. Even within a model year, it is difficult to predict fuel price swings such as have occurred over the last month.

As noted above, long- and short-range predictions are subject to much uncertainty. Nonetheless, Ford attempts to predict external factors 8 to 10 years in the future. These predictions very rarely prove to be an accurate measure of CAFE related factors. More basic assumptions are made about these conditions when the design and approval of a product is finalized four to five years in advance of a major new product. At 28 to 30 months prior to launch, no program changes are permitted. After this point, only minor adjustments are permissible, without forcing program deferrals or cancellations.

Only after clear demonstration that we have taken all appropriate technical actions on our products and determined that no other alternatives are viable, would we consider a petition for standards reduction as a necessary -- and responsible -- course of action. Our alternatives at that time are to stop producing certain products (with attendant severe employment impacts), or to petition. Ford does not take the option to petition lightly. We continue to believe that a manufacturer should not be prevented from petitioning for a reduced standard at any time, especially when uncontrolled or unforeseen factors emerge.

Question 4. Your company has testified that one year is an insufficient time to permit the formulation of an adequate side impact standard. What is your best estimate of the time period necessary for formulation of an adequate standard?

Ford Response

Ford believes that the minimum time needed to complete development of an adequate side impact rule directed at chest and pelvis protection is about four years.

In its response to the NHTSA side impact NPRM (Docket 88-06 & 07) Ford noted that before a side impact rule could be promulgated, several issues need to be resolved. Among these issues are the need for:

- a test dummy which better represents the human chest,
- a better predictor of chest injury,
- an impactor which better represents a vehicle front structure, and
- a demonstration that the side impact test procedure actually predicts injury severities in on-the-road side impact collisions.

In addition, Ford's response urged NHTSA to consider other promising side impact test procedures such as the Composite Test Procedure proposed by the European automotive industry.

Much of the work needed to resolve these issues is already in progress. A Society of Automotive Engineers committee is developing an improved side impact dummy and General Motors has done work on an improved chest injury predictor. Ford believes that this improved dummy and injury predictor development could be completed and tested by the end of 1990.

Composite Test Procedure development is in progress through the joint efforts of the European Committee of Common Market Automobile Constructors (CCMC), the U.S. Motor Vehicle Manufacturers Association (MVMA) and the Japanese Automobile Manufacturers Association (JAMA). This work could also be completed by the end of 1990.

Finally, we believe it should be possible to develop and test an impactor more representative of actual vehicle front structures by the end of 1990.

Should the above efforts prove successful, Ford envisions a program of testing and accident data analysis to demonstrate that the candidate test procedures actually predict injury severities in on-the-road side impact collisions. Concurrently, research should be conducted to evaluate the practicability of a rule based on the improved test procedures. This program could be completed by mid 1992.

Assuming successful completion of the above, a new rule could be completed by mid 1993. Assuming no major conceptual changes to the rulemaking now underway and resolution of the open issues, such side impact protection requirements could be effective beginning with the 1996 model year. Of course, unforseen difficulties in test procedure development or validation could increase the time needed to formulate an adequate standard.

> Question 5. Mr. Ditlow of the Center for Auto Safety testified at the Subcommittee's hearing on April 5 about a study showing that 87% of consumer's believe that airbags should be standard equipment on all new cars. Do you agree with this data? What role does consumer preference play in your decision about whether to equip your vehicles with airbags, under what circumstances would you decide to make airbags standard equipment

on all your passenger cars? On all your light duty vehicles?

Ford Response

While we are not familiar with the specifics of Mr. Ditlow's survey data, we believe it to be directionally correct. Ford and others helped design a survey to ascertain consumer attitudes about air bags and identify any misconceptions consumers might have. The study, conducted under the auspices of the American Coalition for Traffic Safety, concluded, in part, that "95 percent of American drivers and passengers have heard of air bags and only 11 percent disapprove of air bags in automobiles." However, a substantial challenge remains to educate consumers regarding the benefits of air bags in conjunction with usage of safety belt systems.

Ford strongly believes that supplemental air bags, used in conjunction with three point safety belts, are a highly effective means of reducing fatalities and injuries on American highways. We are proud of our strong history of implementing air bag technology and believe we understand consumer preference with regard to automatic restraints. We have structured our product plans to be responsive to our customer's needs and are rapidly expanding the availability of supplemental air bags installed as standard equipment in our passenger cars.

Ford offered the first driver-side-only supplemental air bag on a popular priced passenger car beginning in 1985 (Tempo/Topaz). We introduced the first standard equipment driver and right front passenger supplemental air bag system on a modern domestic vehicle (1989 Continental). For the 1990 model year, Ford will offer standard supplemental air bag systems on approximately 1 million passenger cars. Customer preference was a major factor influencing Ford's decision to provide driver-side supplemental air bag systems on a substantial percentage of its domestically-designed cars for the 1990 model year, despite the high cost of the system.

We believe Ford will produce more 1990 model year passenger cars equipped with standard supplemental air bags than any other automobile manufacturer in the world. Nevertheless, we are planning to further expand the number of Ford vehicles that will be available with standard supplemental air bags in the early to mid 1990s. We are concerned, however, with the capability of our engineering activities and supply base to meet the demands for the 1990 model year and the additional demands we will be placing on them after the 1990 model year.

With regard to installation of supplemental air bags in other light duty vehicles, we are currently evaluating timing, potential applications, engineering implications and supply base issues associated with such an initiative. We are not yet prepared to announce the results of these evaluations or any possible product actions that Ford might pursue.

> Question 6. Please provide any and all data in your possession addressing the issue of whether a correlation exists between vehicle width-to-height ratio and accident rollover rate.

Ford Response

This question has been the subject of much discussion within the automotive industry. A substantial amount of data has been generated and many authors, both inside and outside the industry, have published their respective views on the subject. The extent to which there is a correlation between a vehicle's width-to-height ratio -- that is the so-called "static stability factor" -- and a vehicle's ultimate involvement in rollover accidents is difficult to assess, and there is no unanimity of opinion. A recent petition seeking NHTSA rulemaking based in part on use of the static stability factor as a measure of vehicle rollover stability was denied because of a lack of reliable correlation between the width-to-height ratio and accident involvement. NHTSA currently is conducting research into the entire question of vehicle rollover stability.

Many authors have compiled data as to the static dimensions of various vehicles and rollover rates associated with such vehicles. One extensive compilation of such data is contained at Tab 17 of the American Suzuki Motor Corporation's "Voluntary Submission in Opposition to Petitions for a Defect Investigation of the Suzuki Samurai," dated August 2, 1988, (a copy of the material contained in that tab is enclosed as Attachment I for your convenience). The Company does not believe that the static stability factor is an appropriate measure upon which to base rulemaking. The static stability factor is simply a geometric ratio of two dimensions of a vehicle. It can be used to determine (in a static condition) the point at which a rigid body will "tip over" on an inclined plane when the only forces acting on the body are gravity and friction. Attempting to use this static, geometric relationship -- standing alone -- to anticipate any vehicle's involvement in rollover accidents is unduly simplistic. It ignores critical relevant factors such as vehicle dynamic characteristics and environmental influences.

Ford believes the width-to-height ratio is one aspect of vehicle design to be considered when evaluating new vehicle concepts. However, as the vehicle proceeds through the design and development process and more information is developed about the vehicle design parameters, more sophisticated and complex analysis is required. For example, Ford utilizes complex mathematical models to predict dynamic performance of the vehicle under a wide variety of maneuvers and loading conditions. Attachment II contains technical papers which describe an example of Ford's mathematical modeling applied to light trucks.

> Question 7. Mr. Ditlow testified that, between 1982-86, there were 37 vehicle defect investigations in which NHTSA asked manufacturers to recall a vehicle, the manufacturers refused, and NHTSA did not proceed to enforce the recall. Under what circumstances does your company refuse a recall request from NHTSA? Has your company refused to comply with recall requests more frequently in 1982-86 than in prior years? Please provide information about the result of each case listed in Mr. Ditlow's testimony at p. 2 that relates to a vehicle manufactured by your company.

Ford Response

The NHTSA is empowered both by statute and regulation to order a recall and remedy upon making a "final determination" as to the existence of a defect related to motor vehicle safety. Final determinations generally are preceded by an "initial determination" and a public proceeding at which the manufacturer is provided an opportunity to present its data, views and arguments. Initial determinations are to be "based on a completed investigative file compiled by the appropriate office."

Although not provided for by regulation, NHTSA occasionally has informally requested manufacturers to voluntarily initiate safety recalls based on information available from an incomplete investigation. It has been Ford's practice to consider such requests on their merits. In instances where the request is based on erroneous information, or an erroneous analysis of information, Ford has declined to comply with the request and has explained to the agency the reasons for its denial. Based on available records, both the number of such informal requests and the number that Ford has declined have decreased during the 1981-1986 period as compared to the 1977-1980 period. The disposition of three cases involving Ford products that were cited on page 2 of Mr. Ditlow's letter are summarized below.

1979 Mustang/Capri: Alleged Rear Brake Lock-up - This investigation was opened in July, 1980 and through 1986 included Ford responses to nine agency requests for information and three technical meetings between Ford and NHTSA engineers. Contrary to the assertion in Mr. Ditlow's testimony, the agency's November, 1983 letter did not request that Ford initiate a recall, but rather, stated that "[i]f Ford does not provide substantive new information on this issue, I will recommend that a formal defect investigation be initiated."

The issues in this case are essentially identical to the issues NHTSA litigated in the GM X-Car investigation. In that case, the Court found that a large number of complaints alleging rear brake lock-up and skidding did not by themselves constitute proof of a vehicle defect.

The number of complaints alleging rear wheel lock-up involving 1979 Mustang and Capri vehicles is substantially less than for the X-Car, both in absolute terms and adjusted for the number of vehicles in operation. Ford strongly believes no defect exists in the 1979 Mustang/Capris but is committed to full cooperation with any NHTSA investigation.

1977-1984 E- and F-350 Vans and Trucks: Alleged Wheel Stud Fracture, Dual Rear Wheels - This matter was the subject of two different NHTSA investigations, both of which ultimately concluded that no safety defect existed in the wheel retention systems of the subject vehicles. The issue in this case was whether wheel separations on the affected vehicles resulted from a deficiency in the wheel retention system, or from the failure of vehicle operators to re-tighten the wheel retention fasteners at prescribed intervals or after changing/rotating tires.

The first investigation was initiated in September, 1978. In responding to the July, 1979 informal request that Ford initiate a safety recall, Ford stated that "... we do not believe that any condition involving wheel studs or lug nut fasteners affects the safe operation of the subject vehicles nor do we agree [with NHTSA's assertion] that a 'safety recall ... is clearly required'". The agency subsequently continued to acquire information during 1980 and 1981. The investigation was closed in 1983. The second investigation was opened in May, 1984 and, after gathering initial information, the agency again informally requested a recall in October, 1984. Following that request, Ford engineers provided substantial additional information to the agency. The agency continued its investigation, upgrading it to formal defect investigation status in September, 1985, and ultimately closing it because of lack of evidence of a safety-related defect in August, 1988.

1981-1982 Escort/Lynx Seats: Alleged Seat Back Breakage - Mr. Ditlow's testimony confused two different investigations. The first involved 1981 and 1982 models of Mustang, Capri, EXP and LN7 vehicles as well as Escort and Lynx. The alleged defect involved fracture of an upper attachment bolt of the driver seatback recliner. Ford did recall a portion of this vehicle population (1981 Escort and Lynx station wagons) which had a unique recliner mechanism upper attachment configuration and a substantially higher rate of reported fracture than the other vehicles. This investigation was closed in January 26, 1989.

A separate investigation encompasses 1983-1986 Escort, Lynx, EXP, LN7, Mustang, Capri, LTD, Marquis, Thunderbird, Cougar, Tempo and Topaz vehicles, and involves a different component of the seat--the forward lower bolt attachment to the seat cushion frame. This bolt was also the subject of an investigation by Transport Canada, but for a different population of vehicles. Notwithstanding a strong belief that the complaint data for these vehicles did not indicate the existence of a defect, Ford agreed to recall a portion (approximately 80,000) of the vehicles under investigation in Canada. Ford did not extend this action to the United States because the rate of field reports alleging this condition was only ten percent of the already-low Canadian rate. NHTSA's investigation is continuing.

> Question 8. Please list all research available to you about pedestrian safety, including vehicle design to minimize pedestrian injury. Include in your response the dates of such research, the authors of such research, a summary of the results, and any action taken by your company based on such research.

Ford Response

Attachment III is a bibliography of the significant research in pedestrian protection conducted in the U.S. through 1985, and in Europe and Japan through 1988. The title, publication date and conference title suffice to identify the papers. The key to the conference title designations in this bibliography is as follows:

8th ESV, 7th ESV, etc. - A bound collection of papers from an annual meeting of the Experimental Safety Vehicle Conference

831623 - All of these six-digit numbers are Society of Automotive Engineers (SAE) paper numbers

22nd AAAM, 23rd AAAM, etc. - A bound collection of papers from an annual meeting of the American Association for Automotive Medicine

P-121 - A bound collection of SAE papers on pedestrian protection

TRR 540 - Transportation Research Record 540, published by the Transportation Research Board

20th Stapp, 28th Stapp, etc. - A bound collection of papers from an annual meeting of the Stapp conference

DOT-HS-805-652 - A U.S. DOT report number

3rd ICAS - Not identified

3rd MRAMVA - Not identified

Attachment III also includes summaries of pedestrian injury data in the U. S., Europe and Japan.

In addition to this bibliography, the list of references in Attachment IV includes a number of more recent U. S. papers.

Please note that the emphasis of these papers is on the mitigation of injuries, given that a collision between a motor vehicle and a pedestrian occurs. There is extensive literature dealing with pedestrian accident avoidance through such countermeasures as roadway lighting, facilities design and the control of vehicular and pedestrian traffic. We are not experts in these areas and, therefore, have not attempted to list this literature.

Attachment IV is a recent summary of research in pedestrian protection and provides a good review of what is known about the nature and causes of pedestrian injuries.

Research in pedestrian injury mitigation is aimed at developing an understanding of the precise relationships between vehicle design characteristics on the one hand and injury mechanisms and severity on the other. Ford does not believe that this understanding has developed sufficiently to permit the development of useful performance standards. There are several reasons for this. First, much of the research on pedestrian injuries is based on the front end shapes of the vehicles of the 1970's which are not at all representative of the current vehicles with their emphasis on aerodynamic design. Secondly, a design aimed at reducing one type of injury may worsen another. For example, some findings suggest that a low, rounded, aerodynamic front end with a large contact area may cause less severe leg injuries. However this design may cause more severe head injuries because the lower contact point can produce higher rotation speeds. Also, it is more difficult to package the engine in such a way as to avoid hard points on the hood in cars with aerodynamic fronts. Finally, the countermeasures that are optimal for adults will not be optimal for children. It will be difficult to develop comprehensive guidelines until these conflicts and uncertainties are reconciled by further research.

Nevertheless, some countermeasures are fairly obvious, such as the elimination of sharp contours and unnecessary projections. Such considerations are the basis of current EEC (European Economic Community) Directives 74/483 and 79/488. New Ford passenger cars are designed to conform to the objectives of the external protection requirements specified these directives. Attachment V is E.C.E. Regulation No. 26 which has essentially the same content as the EEC

Directives.

Ford strongly supports NHTSA's pedestrian injury research efforts and the development of practicable and effective measures for mitigating pedestrian injury.

Ford is currently participating in an effort to organize and summarize the worldwide research literature in pedestrian injury and injury mitigation via membership in Committees and Working Groups of the International Standards Organization (ISO) and the Society of Automotive Engineers (SAE). The goal of these activities is to develop harmonized pedestrian impact test procedures.

> Question 9. Please list all research available to you about prevention of head injury due to the changes in a vehicle's "A" pillar. Include in your response the dates of such research, the authors of such research, a summary of the results, and any actions taken by your company based on such research.

Ford Response

The major research on this topic has been conducted by the NHTSA and presented at two major conferences.

1. Monk, M. W., Gabler, H. C., and Sullivan, L. K. "Subsystem Testing for Head to Upper Interior Safety," NHTSA/VRTC, Eleventh Experimental Safety Vehicle Conference, 1987.

A free motion headform (FMH) test procedure derived from accident data was evaluated. The test procedure and associated hardware are described. Mathematical modeling of the FMH is also presented. The FMH results were compared to the Hybrid-III head response levels for upper interior A-pillar impacts. The authors reported that the FMH results compare favorably with those of the Hybrid III dummy. The following reports provide support documentation for the conclusions of this report.

2. Monk, M. W. and Sullivan, L. K., "Energy Absorption Material Selection Methodology for Head/A-pillar," NHTSA/VRTC, SAE 861887, Thirtieth STAPP Conference, 1986.

3. Willke, D. T. and Monk, M. W., "Side Interior Stiffness Measurement," TRC and NHTSA/VRTC, SAF 861880, Thirtieth STAPP Conference, 1986.

4. Saul, R. A., Farson, M. and Guenther, D. A., "Development of a Component Level Head Impact Test Device," NHTSA/VRTC, General Electric and Ohio State University, SAE 861889, Thirtieth STAPP Conference, 1986.

Ford has initiated a project to study and evaluate the methodology set forth in the NHTSA research. Ford plans to complete the evaluation during the first half of 1990.

Question 10. Testimony from automobile manufacturers at the Subcommittee's hearing seemed to indicate that many multipurpose vehicles have voluntarily been brought into compliance with the roof crush standards applicable to passenger cars. , What assurance can you provide that such standards would be voluntarily maintained in the absence of NHTSA's issuance of a motor vehicle safety standard?

Ford Response

It is Ford's policy to continue to design its light truck vehicles to meet or exceed the FMVSS No. 216 standard applicable to passenger cars. As a matter of Corporate policy, Ford designs the roof and pillar structure of passenger cars and light truck vehicles to be capable of exceeding the FMVSS No. 216 static roof crush requirements at both the front and rear of the vehicle.

In a May 4, 1987 response to an inquiry from the NHTSA, Ford indicated that all our light truck vehicles (pick-up trucks, vans and multipurpose vehicles) are designed to meet or exceed the FMVSS No. 216 standard applicable to passenger cars. Since that time, Ford has provided NHTSA with data on production level vehicles tested for vehicle development purposes by Ford's Body and Chassis Engineering Office in accordance with the FMVSS No. 216 procedure (January 27, 1989 and March 15, 1989). These data verified that Ford Light Truck vehicle's roof crush characteristics exceeded the FMVSS 216 requirements for passenger cars.

Competition in offering value-based safety improvements -- as is also the case with supplemental air bags and 5 mph bumpers -- is the best assurance that their performance capabilities will be retained.

Senator **Bryan**. Thank you, Mr. Munson.

Mr. Rogers.

STATEMENT OF ROBERT A. ROGERS, DIRECTOR, AUTOMOTIVE SAFETY ENGINEERING, GENERAL MOTORS TECHNICAL CENTER

Mr. **Rogers**. Thank you, Senator Bryan, Senator Danforth, Senator Gorton.

I am Robert Rogers, Director, Automotive Safety Engineering for General Motors Corporation. We appreciate this opportunity to discuss pending safety issues and the status of GM activities on many of these issues.

In considering the matters that are addressed in the legislation, it is important to acknowledge the significant progress that has been made in recent years in traffic safety. This progress includes a continued reduction in the highway fatality rate, safety belt use laws in 32 states, and declines in alcohol-related traffic fatalities.

Obviously, however, the opportunity exists to do more. GM demonstrates its strong commitment to improved safety through a program which is aimed at providing continuing improvements in all of our new light duty vehicles. An essential element of GM's safety improvements is the work of the medical doctors and scientists who staff our Biomedical Laboratory, which is unique in the industry.

GM remains firmly committed to the installation of supplemental air bag systems in our cars. In the 1990 model year we will provide air bags as standard equipment in approximately half a million cars in a range of body sizes, styles, and price categories.

We are also looking to the future. Responding to the increasing age of the U.S. population, GM is working to understand the unique needs of older drivers. We also are tapping advanced technologies, such as active suspensions and night vision systems, for opportunities to improve driving safety.

GM supports the overall objectives of many of the provisions of S. 673, but disagrees with the bill's approach which would legislatively mandate NHTSA rulemaking actions. Under the Safety Act, Congress determines the Nation's broad safety goals, while NHTSA, following administrative procedures and Safety Act criteria, sets performance standards.

This rulemaking process fostered standards based on scientific information and practicability considerations in a manner that typically cannot be accommodated through legislative mandate. GM believes that Congress should not disturb this basic rulemaking process.

Against this background, GM offers the following comments on parts of S. 673. GM supports an improved side impact standard and is engaged in basic research to acquire the needed scientific information. However, we believe that a mandate to implement a final rule by a specific date is inappropriate and counterproductive.

The rule currently proposed by NHTSA would bring about no significant improvement in real world occupant protection. It is essential to have a rule that is technologically sound and one that will genuinely improve real world side impact protection.

We support regulatory initiatives for light trucks and MPV's that meet the need for motor vehicle safety and are practicable and objective, including the extension of the passive restraint standard to these vehicles. It is important to note that the vast majority of passenger car requirements already apply to light trucks and MPV's. NHTSA's current rulemaking and research programs render a legislative mandate unnecessary.

In 1986, GM announced the early installation of rear lap/shoulder belts in all new GM vehicles. Since NHTSA rulemaking requires such belts, and that rulemaking is already in progress, and nearly all cars already have them, we submit that legislative action in this area is unnecessary.

Based on existing field data studies, GM does not consider a bumper standard as safety-related, and we do not favor a five mile per hour phase two bumper standard. We agree with the NHTSA analysis that such a standard was not cost effective and therefore its reinstatement would be inconsistent with the Motor Vehicle Information and Cost Savings Act.

The Act requires that each standard "shall seek to obtain the maximum feasible reduction of cost to the public and to the consumer."

Because of the potential for reduced traffic injuries from safety belt usage, we believe the incentive grant approach included in S. 673 would be a helpful step in encouraging further belt usage.

On the subject of CAFE petitions, history has shown that it is virtually impossible to forecast accurately a model year CAFE 24 months before start of production. If the statute requires such a filing, the agency will be burdened with a number of contingency petitions each year from manufacturers against the possibility that their CAFE may decline.

Mr. Chairman, this concludes my remarks. I appreciate this opportunity to offer these, and will try to answer any questions you may have.

[The statement and questions follow:]

STATEMENT OF ROBERT A. ROGERS, GENERAL MOTORS CORPORATION

I am Robert Rogers, Director, Automotive Safety Engineering for General Motors Corporation. We appreciate the opportunity to discuss current safety issues -- many of which are addressed in the pending safety legislation, S. 673 -- and the status of GM activities on some of these issues.

In considering the matters that are addressed in the legislation, it is important to note the significant progress that has been made in recent years in traffic safety, thanks to the efforts of concerned citizens, manufacturers, Congress-- including this Committee -- state legislatures, law enforcement and other government agencies at the federal, state and local levels.

This progress includes:

- a continued reduction in the highway fatality rate. NHTSA recently estimated that if the fatality rate had remained at the 1980 level in 1988, there would have been 18,000 more fatalities. The current fatality rate of 2.4 per 100 million miles of vehicle travel is an all time low, and is the lowest reported rate in the world.

- thirty two states and the District of Columbia have enacted safety belt use laws since 1984 -- covering more than 85 percent of the U.S. population -- and all jurisdictions have child safety seat laws. Safety belt use has risen from 11 percent in 1982 to 47 percent in the latest survey, and even broader gains have been achieved in child safety seat use. From 1983 through last year, safety belts saved an estimated 15,200 lives, including 10,300 due to the increased belt usage resulting from the new state laws.

- Due to increased public awareness and the enactment of strong federal and state legislation, fatalities due to drunk driving have decreased significantly.

Obviously, however, there still are too many highway fatalities and injuries, and, therefore an opportunity exists to do more.

At GM, we are continuing our strong commitment to enhanced safety in our vehicles through an ongoing program which aims to make further improvements in the protection of belted and unbelted occupants. This program has resulted in improvements in door latches, hinges, steering wheels and columns, instrument panels and vehicle structures -- changes which may not be visible to the customer, but which enhance the built-in crash protection of the products we offer.

GM remains firmly committed to the installation of inflatable restraints systems -- air bags -- in our cars. These air bags serve as a supplement to the protection provided by the safety belt system.

In the 1990 model year, we will have supplemental inflatable restraints as standard equipment in approximately 500,000 cars, in a range of body sizes and styles and price categories. The models which will have these systems are the Chevrolet Camaro and Corvette; Geo Metro convertible and Storm; Oldsmobile Toronado; Buick Reatta and Riviera; Pontiac Firebird; and Cadillac Eldorado, Seville, Allante, DeVille, and Fleetwood. The driver supplemental inflatable restraint system will continue to be available as optional equipment on the Oldsmobile Eight-Eight and Ninety-Eight.

An essential backdrop to GM's safety progress is the work of the medical doctors and scientists who staff the auto industry's only biomedical sciences laboratory, which conducts basic research on injury mechanisms and health effects. A recent example of the payoff to our customers from the research at this facility was its contribution to the development of the self-aligning steering wheel, which was introduced in the 1989 Chevrolet Cavalier and is being phased in as soon as practicable on our non-air bag vehicles. This steering wheel is designed to improve crash protection for belted and unbelted drivers. It deforms on impact, bringing itself parallel to an occupant's chest, to help spread the force of an impact and reduce chest injuries. The wheel also deforms in a way that can lessen injuries to the abdomen, or potentially the face.

GM is also looking to the future in vehicle safety design. Responding to the increasing age of the U.S. driving population, we are working to understand the unique needs of older drivers and to find ways of better accommodating these needs.

We also are tapping advanced technologies, such as active suspension, traction control, head-up displays, night vision systems, near obstacle detection systems, anti-lock brakes, and "intelligent" vehicle/highway systems, for opportunities to improve driving safety.

As GM scientists and engineers develop new technologies, our human factors experts also study them to assure that they are integrated into our vehicles in a manner that maximizes their effectiveness and meets the expectations of our customers.

GM's commitment to traffic safety extends beyond the design of the vehicle. Recently, following the recommendation of the doctors who make up the GM Medical Committee for Automotive Safety, we produced an innovative new video on drunk driving control, entitled "The Game of Your Life." This video fills a gap in educational materials on prevention of drunk driving, since it is aimed at pre-teens, attempting to influence their attitudes on drinking and driving before they reach the ages at which peer pressure is more influential than parents, school officials or other authority figures. This video and a teacher's guide have been distributed by GM and the American Medical Association to more than 93,000 schools nationwide; the response to date has been very favorable.

Also included in this kit was a new videotape entitled "Safety Belts: For Dummies or People", which is intended to bring the safety belt use message to 5th through 9th graders.

PROPOSED LEGISLATION

GM supports the overall objectives of many of the provisions of S. 673, such as side impact rulemaking, consideration of extending the applicability of passenger car standards to multipurpose passenger vehicles, and installation of rear seat lap/shoulder belt systems. We disagree, however, with the method proposed for meeting the goals of the legislation.

Under the National Traffic and Motor Vehicle Safety Act, Congress determines the Nation's broad safety goals, while NHTSA, following standard rulemaking procedures, establishes specific performance standards.

The safety rulemaking system created by Congress strikes a balance between society's desire for improved safety and its resistance to ineffective or impractical ways of addressing desired improvements. In its specific applications, it permits the development of standards which are based on detailed engineering and scientific information, and considers practicability, in a manner that typically cannot be accommodated through legislative mandate.

GM believes that Congress should not now disturb the basic NHTSA rulemaking process. New or modified safety standards should continue to be initiated and developed by the agency in accordance with the statutory criteria set forth in the Safety Act, and the rulemaking process established in the Administrative Procedure Act.

* * *

Against this background, GM offers the following comments on some of the specific rulemaking provisions of S. 673:

Side Impact Protection -- GM supports a rulemaking initiative for improved side impact protection, and we are actively engaged in the basic research needed to help define an upgraded side impact regulation.

However, we believe that the mandate to implement a final rule by a specific date -- in this case, one year after enactment-- is inappropriate and likely to be counterproductive. For example, if a similar legislative requirement had taken effect one year ago, we are convinced by our research that the rule that likely would be issued as a result of the current rulemaking process would bring about no significant improvement in real world occupant protection.

While the pressure to have an upgraded side impact rule would have been relieved -- and a Congressional directive complied with-- the opportunity to make a meaningful improvement in vehicle safety would have been delayed or even lost. Imposition of an arbitrary deadline can force an outcome before the rulemaking process has reached its proper conclusion.

Working toward the goal of a productive rulemaking, GM and others have undertaken independent efforts to advance the state of knowledge on side impact protection. Our researchers, for example, have developed a new side impact test dummy which exhibits greater biofidelity than the test dummies which have been under consideration (March 1, 1989 news release attached). We also have studied the use of "viscous criterion" for predicting human soft tissue injury. We are working on applying this research to the development of new energy absorbing materials for improved side impact protection.

Further, we are sharing GM's side impact knowledge with NHTSA, so that the rule which is under development by the agency can be technically sound and productive. A legislated target date for the end of this rulemaking process will compromise the final result.

Multipurpose Passenger Vehicle Safety -- We support an orderly rulemaking process for multipurpose passenger vehicles (MPVs) -- including extension of the passive restraint standard to these vehicles -- as long as that process follows the statutory requirements of meeting the need for motor vehicle safety, practicability and objectivity.

It is important to note that the vast majority of passenger car requirements already apply to light trucks and multipurpose passenger vehicles, and it is inappropriate to assume that passengers in these vehicles are less safe than car occupants. We know of no data to support the assertion in the bill that "... the safety of passengers in multipurpose passenger vehicles has been compromised by the failure to apply to them the Federal motor vehicle safety standards applicable to passenger automobiles."

At GM, MPVs are included in the same safety design process as cars, including the "built in" safety improvement program discussed above. And, although not required to do so, our MPVs are designed to meet passenger car roof crush resistance requirements. Many of our MPVs now have head restraints, and we are in the process of adding this equipment to all of these vehicles.

A legislated mandate to extend car safety standards to MPVs is unnecessary. NHTSA is already undertaking various MPV rulemakings, and is engaged in a research program on the safety of these vehicles as called for by Congress in recent Department of Transportation appropriations acts.

Rear Seat Shoulder Belts -- In 1986, GM took the lead among domestic manufacturers in announcing plans to install lap/shoulder belts in all new cars, light trucks and vans. We are well along in meeting that commitment.

Since NHTSA rulemaking on this issue is in progress, and since the vast majority of all cars soon will have these safety belts, legislative action in this area is unnecessary.

Bumper Requirements -- GM does not favor a standard which would require 5 mile-per-hour "Phase 2" -- no damage to the bumper-- requirements as called for in S. 673.

Such action would be inconsistent with the requirement of the Motor Vehicle Information and Cost Savings Act that each standard "shall seek to obtain the maximum feasible reduction of cost to the public and to the consumer." NHTSA analysis has shown that "Phase 2" bumpers are not cost-effective, because the reduction in fuel efficiency from the added mass of the bumper and the added cost from the increased intricacy of the system are not recovered by reduced repair expenses.

To assure consumer satisfaction, the current GM objective is to design bumper systems to protect the car body in impacts up to 5 miles per hour. We take this action for consumer satisfaction purposes, and certainly do not view this as a safety item.

Restraint Use Laws -- We noted above the impressive national gains in safety and child safety use which have resulted in substantial reductions in highway fatalities and injuries. These gains are chiefly the result of the passage of use laws by the states, and we are proud of the role the auto industry has played in working for enactment of these laws.

But more needs to be done, to bring about enactment of safety belt laws in the states which do not have them and to strengthen the provisions and enforcement of the existing laws to increase usage rates even more. The incentive grant approach included in S. 673 could be a helpful step in encouraging further positive safety belt activity by the states.

There also is a need to educate consumers that inflatable restraints are in fact supplementary systems and that they do not replace the need for safety belt use.

CAFE -- S. 673 includes an amendment to the CAFE law which appears to be intended to correct a non-existent problem by requiring manufacturers to petition for changes in CAFE requirements at least 24 months before the start of a model year.

Manufacturers cannot accurately calculate a final CAFE for a model year until after the completion of all required CAFE testing and the end of vehicle production for that model year. History has shown that it is difficult, if not impossible to accurately forecast a model year CAFE 24 months before the start of a model year because CAFE depends on many factors. The most important of these is fuel price, which we cannot predict.

If the law is amended to require the filing of petitions to amend the standard long before the start of a model year, it is likely that NHTSA will be burdened with a number of petitions each year from manufacturers taking protective action against the possibility that their CAFE may decline.

We are seriously concerned with the concept of legislatively detailing the rulemaking agenda and establishing rigid timetables for rulemaking where research is still needed to establish the basis for technically sound and practicable rules. The timing of regulatory initiatives, the development and validation of technology for new standards, and the need for interested parties to participate in that development of rules should not be "scheduled" legislatively. The result may be that we rush an inadequately developed standard into existence which would be a disservice to motorists. We believe regulatory flexibility will best serve our common interest of keeping U.S. roadways the safest in the world.

QUESTIONS OF SENATOR BRYAN

1. Since 1982, has there been any demonstrable change in the sticker price of your company's vehicles, or any change in consumer fuel costs, which is attributable to the reduction of the bumper standard from 5 mph to 2.5 mph? Please provide all information in your possession demonstrating or relating to any change in vehicle sticker price or change in fuel costs that has been directly available to the consumer as a result of the 1982 reduction of the bumper impact standard from 5 mph to 2.5 mph.

The revised bumper standard allowed GM to reduce vehicle costs and thus reduce the Manufacturer's Suggested Retail Price an average of $9 per passenger car in 1983. However, it must be kept in mind that GM did not change bumper impact performance to the 2.5 mph level; we maintained a design objective of 5 mph without damage to the car body.

The $9 price reduction does not reflect the total reduction in cost to the consumer, since further savings were passed on to consumers in subsequent years as equipment specifically related to the 5 mph standard was designed out of existing models. It would have been impractical from an economic or timing perspective to immediately redesign all bumper systems. Instead, bumper system revisions were made concurrently with other scheduled product enhancements. However, since the associated equipment was phased out over an extended period of time, customer savings above the initial $9 are very difficult to quantify as the design impact of the 5 mph to 2.5 mph standard was not specifically tracked.

In regard to fuel economy, the relaxation of the bumper standard allowed for a minor reduction in vehicle weight (keeping in mind that GM did not lower bumper performance to a 2.5 mph level); it can be assumed that there was some corresponding improvement in estimated fuel costs.

2. Please provide any information in your possession relating to any increased costs which your company would incur should the 1982 5 mph bumper standard be reinstated. Include in your answer your best estimate of the dollar value of any such increase. Please indicate what portion of those costs would be passed along to the consumer.

Preliminary estimates indicate that GM would require an investment in the area of $85 million. This estimate assumes that GM vehicle modifications would be required in addition to current scheduled product changes within a reasonable time schedule from a development and resource requirement standpoint. Should provisions be made to "phase in" a 5 mph standard to coincide with future scheduled product changes, investment requirements could possibly be reduced. Conversely, any mandate to implement the standard within a limited time frame (1 to 2 years) would likely increase investment significantly.

3. Your company opposed the provision in S.673 setting a time limit for the filing of petitions to reduce CAFE standards on the grounds that market conditions cannot accurately be predicted 2 years in advance. How far in advance can they be predicted? What lead time for the filing of these petitions is appropriate? If you have filed such a petition between 1986 and the present, how far in advance of the model year to which it applied was each such petition filed?

Market conditions cannot be predicted in advance with any reasonable degree of accuracy since they are dependent on many factors that manufacturers cannot control, such as the price of fuel and the health of the economy. Thus, a specific lead time for filing a petition is not appropriate and should not be legislatively specified, since a standard that meets the test of "economic practicability" two years in advance may not meet such a test as the model year draws closer. NHTSA currently requires that a petition must be filed on or before March 1 for the next model year.

With regards to past filings, GM petitioned NHTSA to lower the "CAFE standards to 26.0 miles per gallon (MPG) for 1986 and later model years passenger cars" on March 1, 1985. At the beginning of calendar year 1988, several petitions were filed with NHTSA by other manufacturers to lower the 1989 - 1990 standards. On May 17, 1988, GM supported those petitions, by reiterating in a petition to the NHTSA Administrator that "the conditions that led NHTSA to amend the 1986-1988 standards have not improved appreciably."

4. Your company has testified that 1 year is an insufficient time to permit the formulation of an adequate side impact standard. What is your best estimate of the time period necessary for formulation of an adequate standard?

No reasonable estimate of the time needed to formulate an adequate side impact standard can be provided until the science is refined to a level that will ensure a side impact regulation that will actually meet the need for motor vehicle safety. This effort must include the use of a biofidelic crash test dummy for side impact testing. Such a dummy does not exist today. A mandated rule using currently available dummies will not predict human injury accurately and will neither be objective nor be in the interest of motor vehicle safety. Accordingly, we testified that "the mandate to implement a final rule by a specific date — in this case one year after enactment — is inappropriate."

The history of Federal Motor Vehicle Safety Standard (FMVSS) 208, Occupant Crash Protection, evidences the need for an objective, biofidelic crash test dummy as part of any reasonable side impact standard. In the early 1970's, when FMVSS 208 was amended to require passive restraints, the available Society of Automotive Engineers (SAE) test dummy was specified as the test device to be used in assessing compliance with FMVSS 208 because it was the "best available". However, a U.S. Court of Appeals ruled in the case of Chrysler Corporation v. Department of Transportation, 472 F.2d 659 (6th Cir. 1972) that the dummy was "inadequate for the testing purpose for which it is designated" because it lacked the requisite objectivity required by the National Traffic and Motor Vehicle Safety Act of 1966. Accordingly, the court remanded the matter to NHTSA "with instructions that any further specifications for test devices be made in objective terms which will assure comparable results among testing agencies, and that the effective date for the implementation of passive restraints be delayed until a reasonable time after such test specifications are issued."

Since the court found the standard to be invalid because of the lack of an objective test dummy, it did not find it necessary to consider the additional contention of the petitioners that the SAE dummy was also a "poor predictor of human response". On remand, the NHTSA ultimately specified the "Hybrid II" dummy developed by General Motors as the test device to be used in assessing compliance with the passive restraint requirements of FMVSS 208. However, the premature issuance of a safety standard before an objective, biofidelic crash test dummy was available resulted in a substantial delay in the promulgation of the final passive restraint rule.

To help bring the science of the side impact issue to an acceptable level so that rulemaking can proceed, GM is developing a new dummy. We began the development of this side impact dummy last Fall, after our testing revealed that the available dummies (SID and EuroSID) were not acceptable for assessing side impact performance. GM's new dummy will be durable, repeatable, and, most importantly, biofidelic. It will be able to assess vehicle changes designed to improve human protection.

We have kept the scientific community apprised of this research. In our response to NHTSA's side impact Notice of Proposed Rulemaking last October, we presented two concepts for developing an improved side impact dummy. We have also been participating in an ad hoc SAE task group on side impact dummies. By early this summer, our new dummy will be made available for evaluation and refinement. The process of formulating a rule could proceed in a meaningful manner after the scientific community reaches a consensus about our dummy.

GM cannot predict what specific period of time will be needed to finish this rulemaking; but, one year is clearly insufficient.

5. Mr. Ditlow of the Center for Auto Safety testified at the Subcommittee's hearing on April 5 about a study showing that 87% of consumers believe that airbags should be standard equipment on all new cars. Do you agree with this data? What role does consumer preference play in your decision about whether to equip your vehicles with airbags? Given the proven safety advantages of airbags, under what circumstances would you decide to make airbags standard equipment on all your passenger cars? On all your light duty vehicles?

GM is not familiar with the poll cited by Mr. Ditlow nor the methodology or assumptions used in this poll to measure consumer responsiveness to factors such as price increases associated with airbags as standard equipment. Consumer preference plays an important role in all GM decisions regarding standard or optional equipment, including airbags. Other factors in the decision include technical practicability, regulatory requirements, and, in the case of airbags, overall safety performance, such as for occupants who would be out-of-position at the time of airbag inflation.

We agree that airbags can be part of an effective occupant restraint system. A recent General Motors study on restraint effectiveness (Leonard Evans, "Restraint Effectiveness, Occupant Ejection from Cars, and Fatality Reductions," September, 1988) estimates driver airbag effectiveness at 18% (effectiveness meaning fraction of fatalities prevented), compared to no restraint at all. However, the study also indicates that drivers switching from lap/shoulder belt restraints to a driver airbag alone would increase their fatality risk by over 40%. This is due primarily to the proven effectiveness of the lap/shoulder belt in reducing fatalities due to ejection and non-frontal collisions, conditions for which the driver airbag is ineffective. We point this out to emphasize that the airbag is a device that supplements the protection provided by the lap/shoulder belt.

The decision to install airbags as standard equipment must be made for each vehicle based on the use for which the vehicle is designed, the technical feasibility of installing airbags in a specific vehicle, and, of course, the preferences of the purchasers of the vehicle. We can foresee that, for their own reasons, some customers may not want an airbag.

6. Please provide any and all data in your possession addressing the issue of whether a correlation exists between vehicle width-to-height ratio and accident rollover rate.

Principles of physics imply that resistance to overturning motion in a rigid body should be influenced by the location of the gravity center and width dimension of the body on its supporting surface. Because the gravity center for most passenger vehicles is located very close to the middle of the width dimension, height of the gravity center and width of the effective track at the gravity center have been proposed as the key factors in rollover incidents. These are described by the relationship T/2H, which is the track width divided by twice the center of gravity height. The T/2H relationship has also been called the geometric stability ratio or the static stability ratio.

Sidepull tests have been conducted with actual vehicles in order to confirm whether these principles of physics apply. The sufficiency of the T/2H relationship has been examined by pulling laterally at the gravity center until rollover motion is initiated. The results of these tests have yielded important insight:

1. The use of the T/2H ratio alone to predict rollover resistance is simplistic. Real vehicles are not rigid under these circumstances. Their rubber tires and suspension systems move under lateral force so that the force required for rollover motion is always less than the level predicted by the T/2H relationship. The tire contact center moves towards the gravity center as the sidepull force is applied. As a result, the vehicle effectively becomes narrower as lateral force is applied to the gravity center and reacted to the ground by the tires and suspension.

2. The degree to which sidepull forces approach levels implied by T/2H appears to vary with vehicle type and design configuration. Some vehicles exhibit sidepull forces up to 85% of their T/2H values while others measure in the 70% range.
3. Also, sidepull force levels for rollover motion are influenced by tire configuration, suspension roll stiffness, camber geometry, camber stiffness, and geometry changes that move the gravity center in the vertical direction.

Researchers have speculated that roll inertia and the ability of the tire-road interface to sustain high levels of lateral force are other important factors that bear a physical relationship to rollover resistance for severe, driver controlled or loss of control maneuvers.

It has always been difficult to derive the physics of vehicle function from studies of accident data because the driving system — consisting of the driver-vehicle-road/environment elements — is strongly interactive and variable. However, many organizations have access to T/2H data and it is relatively easy to measure. Several studies comparing T/2H data with field accident performance have been published.

The published work has been controversial and the subject can best be described as needing further research. There are two major problems with the existing papers: 1) a small and restricted range of vehicles sampled; and 2) major errors in estimating the pre-accident exposure factor, which is critically important for a legitimate comparison of rollover accident rates. A few studies that are more comprehensive are beginning to surface from the extensive NHTSA research programs on the subject. Some of the important preliminary findings from this work can be summarized as follows:

1. Rollover rates for the full range of vehicles with highway exposure deviate significantly from levels implied by their T/2H ratio alone. Heavy trucks have T/2H levels much lower than passenger cars and light trucks, but their rollover rates, measured in terms of rollovers per 100 single vehicle accidents, do not imply a relative lack of rollover resistance.
2. Sporty vehicles, with relatively high T/2H ratios, do not exhibit the lowest rollover rates.
3. Non-vehicular factors, such as driver age, impairment, and physical factors associated with accident location are significant and must be considered with T/2H. This is because these factors are not evenly distributed across various types of vehicles. Many of these factors relate very strongly to rollover rates in single vehicle accidents. Rates for western mountain states are four to five times higher than rates for eastern urban states. Rates increase by a factor of four on roads where posted speed limits are 20 mph higher.
4. Accident data research experts are working to normalize and remove these non-vehicular factors from their statistics to provide more insight into the physics of vehicle rollover. Results published recently show increased uniformity in rollover rates after adjustments are made for non-vehicular factors. However, driver aggressiveness and risk acceptance cannot be determined from accident reports, and are important exposure variables that may not be quantifiable. It may never be possible to completely isolate the vehicle in the driver-vehicle-road/environment equation for separate study.

In summary, the body of credible accident statistics research that is presently available implies at best a nonuniform and tenuous relationship between T/2H and rollover accident rates. These data, examined for a large number of vehicle designs, are also very scattered within a generic vehicle class. There is no evidence of a meaningful "cutoff level" that can be applied as a design guideline. The T/2H level of 1.2 was earlier proposed in one document, but that level is arbitrary. A number of vans, pickup trucks, and a few passenger cars exhibit T/2H values below 1.2 but many of these vehicles show lower rollover accident rates than some sports cars with higher T/2H ratios.

7. Mr. Ditlow testified that, between 1982-86, there were 37 vehicle defect investigations in which NHTSA asked manufacturers to recall a vehicle, the manufacturers refused, and NHTSA did not proceed to enforce the recall. Under what circumstances does your company refuse a recall request from NHTSA? Has your company refused to comply with recall requests more frequently in 1982-86 than in prior years? Please provide information about the result of each case listed in Mr. Ditlow's testimony at p. 2 that relates to a vehicle manufactured by your company.

This question requires some initial background information on the NHTSA defect investigation process. The administrative factfinding process that may lead to an ordered recall under the Safety Act is very deliberate and proceeds through well defined steps: 1) Preliminary Investigation, 2) Engineering Analysis, 3) Case, 4) Initial Determination of Defect, and 5) Final Determination of Defect.

It is important to note is that until step 5, Final Determination of Defect, is reached, NHTSA has not finally determined that a defect related to motor vehicle safety exists.

The NHTSA "requests for recall" cited by Mr. Ditlow are made much earlier in the process, usually in Step 2, before the NHTSA has even "determined" that a safety-related defect exists. Therefore, the NHTSA requests are made before all the facts are gathered, with the result that when all the facts become available, it may become clear that a recall is not warranted. Because the NHTSA investigation process is incomplete when the agency "requests" a manufacturer to recall vehicles, Mr. Ditlow's references to such requests and the implication that these requests represent a final agency position is incorrect and inconsistent with Congressional intent. As the Senate clearly provided in 1966:

> "Premature publicity of this type, of course, can cause undue public alarm, with a damaging and unwarranted effect on vehicle sales even though the suspicions may ultimately prove to be without foundation."
>
> S. Rep. No. 1301, 89th Cong., 2d Sess. 9 (1966).

As for the specific investigations cited by Mr. Ditlow, none of them resulted in a determination of safety defect by NHTSA and all terminated without a recall order. Likewise, GM did not determine that a safety-related defect existed in these vehicles (except for one limited population of vehicles). Therefore, we declined these NHTSA safety recall requests.

The actions taken on the specific cases were:

- 1980 "X" cars, loss of power brakes — closed by NHTSA without a defect determination.
- 1981 "C" and "E" cars door fires — approximately 5000 cars recalled voluntarily by GM; no unreasonable risk to safety existed in the remaining vehicle population.
- 1981-1984 "T" car, crankshaft pulley belts — "customer satisfaction" recall was conducted.

8. Please list all research available to you about pedestrian safety, including vehicle design to minimize pedestrian injury. Include in your response the dates of such research, the authors of such research, a summary of the results, and any action taken by your company based on such research.

General Motors is aware of the extensive literature on the subject of pedestrian safety. For example, the Passenger Protection Committee of the Society of Automotive Engineers (SAE) sponsored a two-day symposium on the state-of-the-art understanding of "Pedestrian Impact Injury and Assessment" at the 1983 SAE International Congress and Exposition. Twenty-three papers are published in the Symposium Volume (SAE Publication P-121, "Pedestrian Impact Injury and Assessment"). In addition, P-121 includes a compilation of 234 references which are listed in a report - "A Bibliography of Pedestrian Accident Reference with Emphasis on Vehicle Design and Pedestrian Injuries". Dr. David C. Viano of the General Motors Research Laboratories was the organizer of this symposium.

GM has studied pedestrian safety over the years and has participated with SAE and other organizations worldwide. The purpose of such work and participation is to assure that GM designers and engineers are aware of research and other information so that it can be considered in vehicle design programs.

9. Please list all research available to you about prevention of head injury due to changes in a vehicle's "A" pillar. Include in your response the dates of such research, the authors of such research, a summary of the results, and any action taken by your company based on such research.

The biomechanics of head impacts with fixed objects, such as "A" pillars, is very complex. Before changes can be made and evaluated, a method to measure performance in terms of a relevant human injury mechanism must be developed. Also, changes made to the "A" pillars must not compromise the structural integrity of the pillars in providing adequate roof crush resistance. Maintaining the strength of the pillar while making it "softer" can mean making it larger. Doing so introduces the risk of obscured vision and "pocketing" where the head could become trapped in an impact, potentially causing neck injuries.

Head injury due to contact with "A" pillars was in part the subject of a recent NHTSA Advanced Notice of Proposed Rulemaking (Docket 88-06; Notice 3 & 4). A portion of our comments to the ANPRM which address some of the biomechanical considerations of this issue follows:

BIOMECHANICAL CONSIDERATIONS
Excerpt From GM Comments to NHTSA Docket 88-06; Notices 3 & 4
USG 2663

Determinations of oblique or lateral impact tolerance for the human head and neck are difficult. Thus, significant investigative efforts are needed to define the biomechanical parameters of injury stemming from those types of impacts. This may affect decisions to use seemingly simple and straightforward countermeasures for injury mitigation. For example, the addition of some padding to the roof rail, header, A pillar, or B pillar may reduce the impact forces on a headform striking the surface from a particular direction and impact velocity. However, a more complete look at the overall dynamics of a vehicle crash, occupant kinematics, and factors controlling the injury production may, in specific instances, dictate the use of other countermeasures which better address real world crashes.

GM is concerned that there is no attention in Notices 3 and 4 to the assessment of neck injury potential. Yet, the type of design changes suggested in the Notices and the PRIA could have significant effects on neck loads in impacts where previously they were not factors. An example of this would be padding that attenuated head impact forces while allowing pocketing of the head and subsequently generating neck loads not previously associated with a more rigid impact surface.

Head impact work done by the Vehicle Research Test Center in East Liberty, Ohio has been based on a headform propelled into the A pillar. GM is concerned that this technique would not allow the determination of neck loads and their effect on head kinematics. Constrained trajectory impactors will provide meaningful measures of acceleration only along their direction of travel and could put forth incomplete or misleading information in impacts where there are rotational components of head and neck forces. This suggests that techniques which address neck loads through the use of other test devices, such as the upper torso of a Hybrid III dummy in a subsystems test configuration, should be considered.

Another factor which must be considered in developing protective systems for vehicle components is the spectrum over which injuries occur. Optimizing a design for a single test condition may not produce as effective a design as one which might reduce injuries over a broad range of crash conditions but would not be judged as effective at an isolated test condition. Choosing too severe a test condition in a single test may yield such a situation. Some aspects of this concern are reflected in the data in the PRIA accompanying Notices 3 and 4.

HIC results were obtained with a baseline versus a padded A-pillar for a Chevrolet Citation at two different test velocities. The 20 MPH test with the headform and with the Hybrid III provided similar results in terms of HIC reduction because of the padded A pillar, although the Hybrid III values were higher in both the baseline and padded cases. At 25 MPH, however, the headform indicated a significant reduction of the HIC to below 1000 while the Hybrid III data showed very little reduction in HIC. Although not enough details were given to determine the reasons for the different results at the higher velocity, the method indicated improvement at a test severity where the Hybrid III indicated a lack of improvement. This may be indicative of an impact test too specialized to be responsive to all appropriate characteristics of such impacts.

Finally, the inclusion of facial injuries in the ANPRM is inferred but not addressed, either in the discussion or in the test procedure. While there are some data on lateral localized impact to facial bones, there are no data on overall facial response laterally. In addition, no test device capable of facial injury assessment in lateral impacts exists at this time. GM believes that this area, because of the trauma that accompanies facial injuries, should become a focus of separate research with its implications in side impacts as one facet of that research. As noted previously, GM has on-going research aimed at improving biomechanical impact-response of dummies and developing viable facial injury measurement techniques.

10. Testimony from automobile manufacturers at the Subcommittee's hearing seemed to indicate that many multipurpose vehicles have voluntarily been brought into compliance with the roof crush standards applicable to passenger cars. What assurance can you provide that such standards would be voluntarily maintained in the absence of NHTSA's issuance of a motor vehicle safety standard?

On May 17, 1987, GM responded to a NHTSA inquiry regarding performance of light trucks and multipurpose passenger vehicles with respect to Federal Motor Vehicle Safety Standard (FMVSS) 216, Roof Crush Resistance. In this letter, we stated in part that:

> As indicated on Attachment I, not all GM light trucks have been tested for roof crush resistance. The new "C/K" regular cab pickup has been tested for roof crush according to an in-house procedure which is different from, but we believe more severe than, the test procedure specified in FMVSS 216. The "M" van and the "S/T" regular cab have been tested to and meet the FMVSS 216 passenger car requirement for roof crush resistance. With the exception of the "P" van, GM is able to offer an engineering judgement that all GM light trucks, MPV's and buses would meet passenger car roof crush requirements if they were to be tested in the manner specified in FMVSS 216. With regard to the walk-in "P" van, we are unable to speculate as to how this vehicle might perform if tested in accordance with the FMVSS 216 procedure.
>
> Note: The "P" van is classified as a light duty truck.

Due to the basic configuration of most multipurpose passenger vehicles, such vehicles have front doors which often are narrower than those of passenger cars. The effect of this characteristic is that the B-pillars are closer to the A-pillar and therefore contribute to the load carrying capacity of the roof.

In general, multipurpose passenger vehicles are designed to operate in more severe environments (such as off-the-road, back roads, and construction sites) than is typically the case for passenger cars. The structure and durability required to successfully operate under these conditions leads to designs which exhibit good structural integrity.

In light of these inherent design features of multipurpose passenger vehicles, the current performance which is provided voluntarily would be maintained.

Senator **Bryan**. Thank you very much, Mr. Rogers.

All of you on this panel have expressed your opposition to the provision in the bill that would impose a time period for the rulemaking process. I must say that, based upon the testimony that we have heard this morning in terms of the length of time to get a rule promulgated, it has a longer gestation period than anything known in the laws of nature.

Are you each saying that no time restriction is appropriate, or are you just opposing the one year provision? I will get you, Mr. Slechter, Mr. Munson, Mr. Rogers, if you might respond to that.

Mr. **Slechter**. Well, the one-year period certainly is a very serious concern to us for any mandated regulatory schedule from start to finish, or even from where they are at that particular time.

We think the agency was designed to take on the chore of sorting out all the technical issues involved in a complex rulemaking situation, and that they should be allowed to operate in that mode. That is what the legislation contemplated.

Senator **Bryan**. So you are comfortable with whatever period of time it takes? It is not a particular concern to you?

Mr. **Slechter**. Well, this is a continuing dialogue that goes on between the industry and the government on these issues, in the situation of head restraints, for example, the continuing back and forth between us in the industry and with consumer inputs, I am sure, on an informal basis with them, on the merits of going to a regulation in that area, and in other areas also.

And these kinds of things do lead us in our own industry to start doing things. And as I said in my testimony, we are moving in the head restraint area.

And on something like side impact, it is a different story. It is a much more complex issue. We as an industry and I think as a government really do not think we have a measuring device to use as a yardstick that we are going to need to develop the performance in the vehicle that will get us the improvement in side impact that we are looking for.

Senator **Bryan**. Mr. Munson.

Mr. **Munson**. Chairman Bryan, the Ford Motor Company's position is that we are not so much concerned nor restrained with the implementation of legislation within a certain time frame. Our primary concern is that the test procedures and the performance criteria really offer the occupant some protection and that there is a real benefit there.

And you know, it could happen within a year or it could happen within two years or it could happen within the confines of your safety bill. But we just want to make sure that what we do, we are doing the best thing for the consumer.

And I believe the side impact issue is a very complex issue and we should make sure that what we do is really going to have a benefit and protect the occupants of the car.

Senator **Bryan**. Mr. Munson, do I understand your testimony, you are concerned about the methodology of adopting the standard and I appreciate what you are saying there? Are you saying that you are amenable to some criteria in terms of some time period where the study, the analysis, the review, the endless discourse between the government and the industry must reach a terminal point and a decision made?

Mr. **MUNSON**. Well, I would just hate to see us get into a mode where time frames dictate the incorporation of technology, because we may be doing a great disservice in some areas where we think we are doing good. And if we implement regulations and rules before it is all completely sorted out so that we really understand what the benefits are, I think that is wrong.

I guess what I am really saying is that I would have no problems if we all understood and recognized and consensed on procedures and the performance criteria, whether it happened in six months or six years. I just want to do what is right.

Senator **BRYAN**. Let me vary the question a little bit to you, Mr. Rogers. You testified that you support a side impact standard. How long is it reasonable for American automobile buyers to wait for the development of that standard?

For some of us on this Committee who are not technically versed, you know, John Kennedy issued the challenge in 1961 that we will place a man on the moon by the end of the decade, and we did so in 1969. That strikes me, as a lay person, as a pretty technical undertaking—new technology, major breakthroughs.

And yet, in the same sense, for some reason which defies at least a few of us, the side impact standard is so extraordinarily complex we cannot do so in the same period of time. Maybe you can respond to that.

Mr. **ROGERS**. I would like to try. Mr. Munson's remarks I think echo our view exactly, and I would like to add to that if I may.

We have spent a lot of years, 15 or more, getting the frontal impact protection in our cars to where they are today. The side impact collision is a whole new technology that has to be developed. The first thing we have to develop is an understanding of the human injury mechanisms that occur in side impact and develop a suitable surrogate that will serve for that purpose.

We are proud to announce that we are on the threshold of announcing that surrogate. We have been developing a new dummy with the physicians and Ph.D.'s at work in our Biomedical Laboratory, and we are very close.

We have commented to the agency extensively on the work we are doing, and our research is continuing, and we would hope that in the near future we will have the tools in hand with which we can reach a worldwide consensus on how this standard ought to proceed and that we can proceed with a meaningful standard that will indeed get the safety benefits in the field that we all seek.

But for me to sit here and say how long that is going to take, we are not quite far enough along yet to say when that would happen. But I would hope in the near future we will be at a point when that will be much clearer to us.

Senator **BRYAN**. Mr. Rogers, what I hear you saying is worldwide consensus. If one goes back to the advent of World War Two, the Manhattan Project that launched the atomic bomb on Hiroshima and Nagasaki developed in three years. I am sure that there were some who disagreed with this approach or that approach. But somebody, somebody made the decision, we are going to move forward, gentlemen.

And what I hear you saying, with the greatest respect to each of you, is that, well, we are working on this consensus-building process.

Is it reasonable to assume that everybody—technician, consumer advocate, industry—that everybody will be able to agree on anything? I think not, based upon my experience in public life. Does not somebody have to say, this is about the best that we are going to be able to do, we think it is a reasonable standard, and we are going to go forward, notwithstanding the fact that we may have some folks who dissent?

Mr. ROGERS. Senator, I would have to agree with you, and if I conveyed that impression that is incorrect. But certainly we have to get to a point where there is a sufficient scientific base under what we are doing that the standard will withstand the challenge of those who might not agree and that it will indeed result in the safety gain we all seek.

Senator BRYAN. Senator Danforth.

Senator DANFORTH. I have no questions, Mr. Chairman.

Senator BRYAN. Senator Gorton.

Senator GORTON. Just as this panel was coming up, I leaned over and mentioned to Senator Danforth with some admiration the fact that he had been involved in this kind of crusade ever since he had gotten here to the United States Senate.

And he commented on the intense satisfaction that he has had from his involvement, because automobile safety and the promotion of automobile safety can have impacts which are measured in lives and which to a certain extent can be quantified.

That led me to a general question. I suspect I will get self-serving answers from the members of the panel, but they can give those answers and I can reserve the right to believe them or not.

But I would like to know from each and all of you whether you believe that any significant number of these safety standards would have been adopted by any one of your companies in the absence of the National Highway Transportation Safety Administration, given the fact that, as many of your companies have so frequently said, safety does not sell very well and usually is not a major factor in your advertising?

And alternatively, whether that Administration would have required even what it has required so far in the absence of pushing from this Committee and its sister committee in the House of Representatives?

Do I get from your testimony here, which I suspect we could have heard when I first came to the Senate in 1981 or when Senator Danforth first came four years before that, that you are totally satisfied with the slow pace with which NHTSA is operating and really do not want any changes in the authorization, the statutory language for that Administration?

Mr. SLECHTER. I guess I am the stuckee for the first answer.

The earlier part of your question takes me back to really 1965, because that is the time when we began to talk about forming a Federal agency for this mandate. And I believe after reasonable men debated the process and authority to begin that new agency, I believe all the auto manufacturers agreed that this was a salutary thing that had to be done, that we could not go off on our own, because number one, we lacked the research capability, each one of us, to get all the answers we needed on how to improve our vehicle safety, and we needed a Federal agency to manage that process.

And secondly, we all I think agreed that from a competitive standpoint we needed to get a base floor of safety in all of our vehicles that would be agreed upon by everybody.

And so we argued back and forth through the years as standards have been developed. I think we have come to reasonable compromises as people of good faith and have reached over a 20-year period a situation where we have raised the level of safety in our vehicles tremendously, I believe, through the help of a lot of people, including this Committee and committees such as this one on the House side.

It is a synergistic process, as I see it, where pressure points come in from consumers, both from advocate groups and private citizens, into the public forum here, as well as into letter writing to our own companies to tell us when something is really wrong with a vehicle.

It comes from your panel and panels such as this. It comes with serious give and take between us and the agency in the dialogue in rulemaking. A lot of dialogue takes place before the first piece of rulemaking is struck on an issue. We trade research results with the agency. We learn from them, they learn from us.

All in all, the process I think is working very well. Whether or not a particular agency at a particular segment of time is moving quickly enough or not quickly enough is really a judgment call.

In this last period of time this agency, number one, I think has really fostered voluntarism among the manufacturers, more than any other one had before, to a degree that we like that. We like the idea of getting us some more flexibility, particularly since we have come to a point really where we have raised ourselves above this very early period of 20 years ago, to a point where we really feel we are providing pretty safe vehicles at this point.

Mr. **Munson**. Senator, I think that the "safety does not sell" statement is in today's atmosphere pretty much a myth. We at Ford Motor Company feel that safety does sell, and the consumers in the marketplace are telling us that they want safer vehicles.

And subcommittees like this one, agencies like NHTSA, and also the automobile industry can work together to provide meaningful—and I stress meaningful, because to implement things before they are ready, that is the wrong way to go.

There are things that the automobile manufacturers have done voluntarily to improve the safety of their products. There are other mandates that have come from the agency that have shown a consumer benefit and improved vehicle safety and that is good.

And certainly the Committee and Mr. Danforth's prodding over the years has been a primary driver in what we are seeing today in the way of air bags being installed in our products.

So this whole process is a good process. And quite frankly, as a manufacturer the Ford Motor Company would not like to see, an environment where none of these factors exist. I think it is good. It is a good competitive environment and, we welcome it.

Mr. **Rogers**. If I may, I would just simply like to add to that that, while timing is important, that we move this thing along as fast as we can, that fundamentally the science has to drive it so that we get the gains that we need. And science sometimes takes time.

We cannot schedule inventions. It takes time for the developments to occur.

The side impact situation, the occupant of the car is only the thickness of the door away from being a pedestrian. It is quite a different protection mechanism that has to be developed than what you have in a frontal. And that science is coming along quickly now, and we just need to be sure that it is brought to bear as soon as it is ready, but not before, for fear that we will not get the gains we are looking for.

Senator GORTON. Thank you.

Thank you, Mr. Chairman.

I may say that those were not, particularly Mr. Slechter's, were not the worst answers I have gotten to that question. I appreciate their at least taking it on.

Senator BRYAN. We will send a report card to Mr. Slechter's chief executive officer and reflect his performance accordingly.

For a final word of wisdom to the panel, we call upon Senator Danforth.

Senator DANFORTH. Well, this is not a word of wisdom. I was just curious listening to your testimony. Mr. Rogers testified that GM had developed a new kind of dummy for the purpose of testing side impact tests, and that this was done with Ph.D.'s and M.D.'s who worked for GM. And Mr. Slechter said that between NHTSA and the auto makers there was an exchange of information on safety matters.

Would the GM dummy be shared with the other auto makers? In other words, are safety breakthroughs, safety technologies, new designs for air bags, that kind of thing, are these viewed as proprietary and trade secrets and a competitive advantage? Or are they viewed as things that should readily be available?

And how should they be viewed, and should they be shared? And should we as a Committee be looking at whether or not exchanges of information should be more frequent?

Mr. ROGERS. As it relates to fundamental technology and to science, I think it is freely exchanged through subcommittees on such organizations as the SAE. Engineers and scientists do get together and compare the progress that is being made.

We have shared through technical publications the new understandings we have made of the human tolerance to injury from side impact and the corridors that those represent from head injury and injury to the upper torso and to the abdominal area.

And now, as we have developed a surrogate that will allow us to infer what the injuries to the public might be in the field when we run such tests in the laboratory, we are quickly coming to the level of understanding that we have for frontal impacts, which in many cases produced quite different mechanisms of injury in the human body.

And so to answer your question directly, sir, we do exchange that fundamental scientific information so that we might all benefit from it.

Senator DANFORTH. Do either of the other witnesses have a comment as to whether information relating to safety is exchanged and made available?

I know you all do tests. I mean, I have been, Mr. Rogers, to the GM facility and seen the tests where the car is crashed and the dummies and so on. Normally there are legal restrictions to sharing trade information, antitrust violation possibilities and so on.

I was just curious as to whether we should somehow facilitate the sharing of the information or whether it is being done now, or what our position should be.

Mr. MUNSON. From Ford Motor Company's viewpoint—and I agree that through organizations like the SAE, the Society of Automotive Engineers, where there are a number of subcommittees that are made up of engineers and scientists from various organizations, not only the automobile companies but other industry companies, information is shared there.

And where there is an issue as large as the side impact issue and the kinds of issues associated with trying to get a very human-like dummy, those kinds of data and research are discussed in these committees. And public hearings are held by NHTSA to go over these issues.

So I do not think there is a sense out there that, because GM would develop this particular dummy, that it would be one that could not be used by anybody else.

On other safety devices, although we all may take a different approach to how it is executed and manufactured, much of that technology is technology from the supplier industry, and those same suppliers could manufacture parts for General Motors and Ford as well as Chrysler. So I do not think there is any issue associated with that.

Mr. SLECHTER. Yes, sir. I agree with all that has been said before, and there is a basic difference between sharing research information, trying to find the basic fundamentals involved in the problem versus the specific solution we are going to use on a vehicle.

But that remains proprietary in our company and I am sure the other companies, except for the obvious network of suppliers, as Mr. Munson has said.

Senator DANFORTH. What remains proprietary?

Mr. SLECHTER. The specific vehicle design.

Senator DANFORTH. The application.

Mr. SLECHTER. The design itself.

And obviously, the moment the vehicle becomes a marketable item, we all look at each other's products to see who has done the better job, and we keep up with that also.

Mr. ROGERS. In this regard, would you permit me to comment, Senator, that the Hybrid III dummy that is in use in Standard 208 today and the injury criteria that is the accepted measure for acceptability of restraint systems was all developed at the GM Bioscience Laboratory years ago. The same sort of sharing of basic scientific information.

Senator DANFORTH. You are going to send your new dummy to Ford and Chrysler?

Mr. ROGERS. We are going to send them the plans.

Senator DANFORTH. They will make you buy it?

Mr. MUNSON. We will have to buy it.

Mr. SLECHTER. Senator, just as a final comment—this may add or subtract from my scorecard relative to my leader, but I think from our standpoint General Motors has really done a fabulous job of providing the resources and the research into this particular area of dummy development, biofidelity.

And to my recollection, at all steps in the process when they have had a development reach a stage of maturity they have always made it available to the rest of the industry.

Senator DANFORTH. Thank you, Mr. Chairman.

Senator BRYAN. Thank you very much, Senator Danforth.

Gentlemen, we appreciate your testimony here today. I hope that you will communicate the concern and interest of the Congress in developing new improved safety standards and their implementation as quickly as possible. Thank you so much.

For our final panel this morning, we have: Mr. Brian O'Neill, President of the Insurance Institute for Highway Safety; Mr. David Snyder, Counsel for the American Insurance Association; and Mr. James E. Reagan, Senior Vice President, Government Employees Insurance Corporation, and Chairman of the Driver Safety Committee of the National Association of Independent Insurers.

Mr. O'Neill, we will begin with you.

STATEMENT OF BRIAN O'NEILL, PRESIDENT, INSURANCE INSTITUTE FOR HIGHWAY SAFETY

Mr. O'NEILL. Thank you, Mr. Chairman, Senator Danforth, Senator Gorton.

I would like to have my full[2] statement put into the record and I will summarize it in the interest of time.

Senator BRYAN. Without objection, it will be so incorporated.

Mr. O'NEILL. What I would like to do is touch on a few issues that have been talked about at length today. First, side impact protection is clearly one of the most important areas of current highway safety rulemaking. But unfortunately, this is one of the areas in which NHTSA has been moving much too slowly.

We have known for years that the side impact requirements on the books are inadequate. Yet so far all the agency has offered is a proposal to limit chest and pelvic injury. And as you have already heard today, this proposal has been debated for a decade now.

This is an important step and one on which the agency should move very rapidly, but it is not enough. It is merely an initial step in upgrading side impact protection. Equally important is acting promptly to address head and other serious injuries from side impacts, and we have not even begun that process yet.

You have heard talk this morning about light trucks and multipurpose passenger vehicles. These vehicles, which now comprise a significant segment of the passenger vehicle fleet, should meet the same or equivalent safety standards of cars.

And the most important of these standards by far is the one requiring automatic restraints. All 1990 model year cars have to be equipped with air bags or automatic safety belts. This is not so for light trucks and multipurpose passenger vehicles. Yet, despite the fact that everyone familiar with occupant protection issues agrees that sooner or later the automatic crash protection standard will be extended to cover these vehicles, NHTSA has yet to make a single move toward such rulemaking.

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[2] The attachments were not reproducible.

Another important safety problem relating to small multipurpose passenger vehicles involves the propensity of some of these vehicles to roll over. We have known for years that this is a serious problem. Yet, again this significant and well documented problem is not receiving sufficient attention at NHTSA. They have to move forward on this issue.

The second issue is rear seat safety belts. Again, we have known for a long time that lap/shoulder belts are an improvement over lap belts in all seating positions, including the rear seats of cars.

What has the agency done so far? It has issued a proposal for rear seat lap and shoulder belts that amounts to little more than codifying what the manufacturers have already decided to do.

It is quite clear that to get optimum protection from lap/shoulder belts in rear seats we need crash tests with appropriate injury criteria, because it is possible to put lap/shoulder belts in cars with inadequate seat cushions that can aggravate some of the situations and produce injuries in certain crash conditions.

You have heard this morning about bumpers. Ever since NHTSA rolled back Federal bumper requirements from five to 2½ miles per hour in 1982, consumers have borne the cost of unnecessarily expensive fender-bender crashes. In fact, each year about 16 percent of all vehicles are involved in an accident that results in a claim for vehicle damage to an insurance company.

That is a lot of accidents. Most of them involve no injuries to the occupants, and they are referred to as fender-bender crashes. This is a huge and expensive problem.

Contrary to what Mr. Felrice said this morning as well, cars with better bumpers do finish up with lower insurance rates, because under collision coverage insurance all insurers, I believe, now have what are called make-model rating programs, so that the premiums charged for collision coverage, which is the coverage for damage to the automobile, reflects the real world damage experience of those cars. And cars with flimsier bumpers have been shown to produce more insurance claims. This is a huge burden on consumers and one that the agency has just not paid sufficient attention to.

Another issue that is important is the issue of child protection. We have good infant restraints and we have good child restraints, but there are a group of young children that are growing out of infant restraints that have problems with adult seat belts.

There used to be on the market booster seats which raised children up to ensure that lap or lap/shoulder belts are correctly and safely positioned across their pelvises instead of across their abdomens. These seats are not so widely available now, and some of the ones that are available have raised questions about abdominal injuries and ejection from the seat itself. But again, there is no rulemaking action apparently contemplated by the agency to address this question.

I would like to finish my statement by saying I think one of the problems we are dealing with here is the way this rulemaking process takes place. Once a rule is in place, a Federal motor vehicle safety standard is in place, it virtually never changes.

We knew, for example, back in the mid-1970's that the test procedures for energy-absorbing steering columns were inadequate and inappropriate. We knew that in the mid-1960's. The agency knew that in—I am sorry, the mid-1970's.

The agency knew that in the mid-1970's. The automobile manufacturers knew that in the mid-1970's. Yet we still have the same inadequate standard in place.

And I think this is one of the reasons the agency is reluctant to move forward on rules, because they write a rule and it stays in place forever. The time I think is ripe to change the process, to make the rulemaking process more evolutionary, so that we start with some interim steps, some interim rules, recognizing that as we get more science and get more information, we will improve those rules.

We have known how to upgrade side impact protection for a long time. I would agree with some of the statements that we do not know how to perfect side impact protection. But let us not wait for perfection. Let us start with some interim rulemaking, recognizing that these rules are going to evolve and become better as we get more science.

Thank you, Mr. Chairman, Senators. I will be happy to answer any questions later.

[The statement and questions and answers follow:]

STATEMENT OF BRIAN O'NEILL, PRESIDENT, INSURANCE INSTITUTE FOR HIGHWAY SAFETY

The Insurance Institute for Highway Safety is a nonprofit research and communications organization that identifies and develops ways to reduce motor vehicle crashes and their losses. We are supported by the nation's property and casualty insurers. At this subcommittee's request, I'm submitting for the record information from the Institute on various issues relating to the performance of the National Highway Traffic Safety Administration (NHTSA) and, in particular, to the agency's dereliction of responsibilities in the areas of side impact protection, multipurpose passenger vehicles, rear-seat safety belts, automobile bumpers, and child restraints.

Side Impact Protection

One of the most important areas of current highway safety rulemaking involves side impact protection. Unfortunately, this is also one of the areas in which NHTSA has been moving much too slowly. We have known for years that the side impact requirements on the books are inadequate. Yet all the agency has offered so far is a proposal to limit chest and pelvic injury. This is an important step -- one the agency should move on very rapidly -- but it isn't enough. It's merely an initial step in upgrading the side impact standard. Equally important is acting promptly to address head and other serious injuries from side impacts.

The importance of head injury in side impacts is demonstrated by preliminary data from an Institute study in Charlottesville, Virginia. These indicate that a substantial proportion of all serious injuries sustained in side impacts are to the head. Another Institute study has found that more than half of all people killed in side impact crashes had head injuries.

The Institute has advised NHTSA repeatedly to move more quickly to upgrade side impact requirements and to address head as well as chest and pelvic injury. We and others have supplied the agency with extensive information to proceed with this rulemaking (Attachments 1-3). While it's important to continue gathering relevant data and refining all motor vehicle safety standards once they are issued, it's long past time to act on -- not just study -- this issue.

Light Trucks and Multipurpose Passenger Vehicles

It has been obvious for a long time that automatic restraint and other passenger car safety requirements (or their equivalents) should be applied to light trucks and multipurpose passenger vehicles. Such vehicles now constitute a significant proportion of new passenger vehicles. They are being used in most cases just like passenger cars. But they don't have to meet all the safety standards for cars because manufacturers don't classify them as such and NHTSA uses out-of-date definitions for regulatory purposes.

Light trucks and multipurpose passenger vehicles ought to meet the same or equivalent safety standards as cars. And the most important of these standards, by far, is the one requiring automatic restraints. All 1990 model year cars have to be equipped with air bags or automatic safety belts. This isn't so for light trucks and multipurpose passenger vehicles. Despite the fact that everyone familiar with occupant protection issues agrees that, sooner or later, the automatic crash protection standard will be extended to cover these vehicles, NHTSA hasn't made a single move toward such rulemaking. It appears the agency will only initiate such action when pressed to do so, even though beginning rulemaking without pressure would have allowed for a more deliberate and careful process. NHTSA should be required to initiate such rulemaking now to avoid the problems inherent in a hurry-up rulemaking process.

A very specific safety problem relating to multipurpose passenger vehicles involves the propensity of some small utility vehicles to roll over. We've known for years that this is a problem. According to our latest data, small utility vehicles have death rates that are nearly five times the rate for large cars (Attachment 4). Nearly half of all occupant deaths in small utility vehicles occur in single-vehicle crashes involving rollover (compared to under 10 percent for midsize and large cars). This is a significant and well-documented motor vehicle safety problem. It's another area in which NHTSA should be -- but isn't -- taking action.

Rear-Seat Safety Belts

The Institute also supports requirements for installing lap/shoulder safety belts in the outboard rear seats of all passenger vehicles. NHTSA must, in fact, do more than require such belts. The agency must also assure they provide sufficient protection by specifying dynamic test requirements. Under NHTSA's current proposal, however, the manual lap/shoulder belts in the rear seats of passenger cars would only have to meet static -- not dynamic -- performance requirements. This is despite the agency's recent statement that rear-seat lap/shoulder belts be carefully designed in conjunction with the rest of the vehicle. The agency stated that retrofitting rear-seat lap/shoulder belts may not be appropriate in some models because of the specific vehicle design features such as the softness of seat cushions. The same features that are relevant to retrofitting belts are also relevant to the initial installation of lap/shoulder belts in new vehicles. The only way to ensure good occupant protection is to conduct crash tests that include not only the injury criteria for automatic restraint compliance but also limits on abdominal loading and occupant submarining, which are crucial for good belt performance.

The agency's present proposal for rear-seat lap/shoulder belts amounts to little more than codifying what automakers already are doing. As the Institute has told NHTSA (Attachment 5), failing to require crash tests with appropriate injury criteria for these belts amounts to a dereliction of responsibility.

Automobile Bumpers

Ever since NHTSA rolled back federal bumper requirements from 5 mph to 2.5 mph in 1982, consumers have borne the cost of unnecessarily expensive fender-bender crashes. The fact is, car bumpers can be designed to prevent most damage in low-speed crashes. Consumers have indicated they want such bumpers, and manufacturers have shown they can provide them. Automakers successfully equipped their cars with no-damage 5 mph bumpers when they were required to do so by federal standard. They still should be required to do so. And, until such a requirement is put back in place, consumer information is essential.

NHTSA said back in 1982, when it rolled back the standard to 2.5 mph, that the marketplace should determine what kind of bumpers new cars would have. If consumers wanted stronger bumpers, the agency said, competition among car manufacturers would ensure their availability. But this isn't the case. Consumers find it impossible to identify cars with decent bumpers because manufacturers don't provide any useful information on the protection their bumpers provide. Nor is NHTSA providing the consumer information program on bumpers that was called for in the Motor Vehicle Information and Cost Savings Act of 1972. The agency promised that such a program would provide "independent confirmation of manufacturers' bumper performance claims to assure that purchasing decisions are based on the most accurate information available." But where is this program? It has been 17 years since federal legislation called for NHTSA to implement such a program. Yet it's not in place.

Instead of providing meaningful bumper performance information, NHTSA is spending its time on third-rate evaluations of the weakened bumper standard in order to justify its 1982 rollback. The most recent example of this is a NHTSA study involving assessment of the effects of the weaker standard by disassembling bumpers on several 1981-84 model cars and comparing the identified bumper design changes with changes in insurance claims. According to the agency, this exercise would indicate the cost to consumers of weakening the bumper standard. Not at all surprisingly, NHTSA concluded that such costs are nil. But this is an invalid conclusion because of the study's many errors, the most egregious of which involves the rejection of low-speed crash tests to verify the agency's analyses of the relationships between bumper design changes and performance. Instead of using crash tests for verification, NHTSA has substituted its "engineering judgment," claiming that crash tests "are designed to establish minimum thresholds of performance," not to make fine distinctions among specific performance levels (e.g., 3 mph, 4 mph, 5 mph). This makes no sense as a reason for failing to use crash tests because federal bumper standards have specified such tests to determine compliance.

At best, NHTSA should restore the federal 5 mph no-damage bumper standard. At the very least, though, the agency should start publishing useful consumer information on the subject, as it promised to do.

Child Restraints

Child restraint laws in all 50 states have increased the number of infants and very young children who ride in restraints. But it's equally important for older children -- those who have outgrown special child seats -- to also travel safely restrained. Restraint use in the 5-12 age group is only 28 percent, though, compared to about 75 percent for younger children.

The Institute has presented information to NHTSA on ways to improve occupant protection for older children (Attachment 6). One way is to encourage booster seats, which raise children up and help ensure that lap belts are correctly and safely positioned across children's pelvises instead of incorrectly and dangerously across their soft abdomens. In addition, by raising children up a few inches off the vehicle seat, boosters help position shoulder belts across children's chests rather than their necks or faces.

Booster seats designed to be used with lap/shoulder belts formerly were available from several manufacturers. But the Institute presently is aware of only one automaker (Volvo) that sells such a seat in the United States. The kind of booster more readily available today is one intended for use with lap belts that also uses a shield as the primary means of restraint -- a situation that has raised questions about the potential for abdominal injury and ejection from the seat itself. But the relevant federal motor vehicle safety standard doesn't include any injury criteria or test procedures for measuring abdominal injury potential. To ensure there are no problems with short-shield boosters, NHTSA ought to develop such criteria and a measurement technique to assess potential abdominal injuries.

Conclusion

On issues from side impact protection to booster seats for children, the best description of NHTSA during the past few years is slow-moving. There has been little or no activity -- although in some cases a great deal of lip service -- to improving the safety of motor vehicles.

QUESTIONS OF SENATOR BRYAN

1. Please provide any information you have about the actual costs and savings to consumers of a 2.5 mph bumper impact standard as opposed to a 5 mph standard. Include in your answer any information you have on the accuracy of the cost calculations utilized by NHTSA in its 1982 rulemaking rescinding the 5 mph standard (47 Fed. Reg. 21819, May 20, 1982).

The Institute addressed the problems of bumper protection and consumer costs in thoroughly researched analysis reports to the NHTSA docket in June 1987, February 1987, and again in February 1989. In all of these analyses and reanalyses, we reached the same conclusion -- consumers were not served well by NHTSA's initial calculations of costs and benefits, and they still are being presented with confusing and misleading information based on faulty analyses that do not take into account the real costs of low speed collisions. Insurance collision claim frequencies have sharply increased for cars with weakened bumpers, and there is no evidence that reduced bumper protection has significantly reduced car prices or weights or improved fuel economy.

In June 1987, Institute staff analyzed NHTSA's report, "An Evaluation of the Bumper Standard -- As Modified in 1982." The NHTSA report suffered from several serious methodological, analytical, and procedural flaws. It was supposed to be based on comparisons of cars meeting the prior 5 mph standard and otherwise similar cars with weakened bumper systems, yet many of cars were improperly classified as to bumper system. The report also relied on a driver survey that had serious reporting biases and on insurance claims data that had improperly combined collision and property damage liability claims. In addition, the cost savings estimates used by NHTSA raised serious questions. The claimed vehicle weight savings were based on improper classifications for changed and unchanged bumper systems. The assumption that as much of 50 percent of fuel cost savings would come from secondary weight savings was not realistic: Most models had no secondary weight changes at all. The NHTSA report estimated that the weaker bumpers produced vehicle price declines of $17; however, for the models where direct comparisons were possible no changes whatsoever were found in window price labels for cars with weaker bumpers.

NHTSA responded to our comments, and again we tried to set the record straight. NHTSA claimed that the weakened 2.5 mph standard did not increase consumer costs; that is, higher collision repair costs were offset by lower car prices and weights and improved fuel economy. NHTSA'S bumper classification method was clearly subjective and relied to a great extend on engineering judgment. It rejected crash test methodologies with the perplexing claim that they "are designed to establish *minimum thresholds* of bumper performance" and not to make fine distinctions among specific performance levels, yet the bumper standards are specified in crash test terms. Such tests are needed to validate engineering judgment. Again, the consumer was not served well.

NHTSA's response to our comments in letters to Representatives John D. Dingell and Thomas A. Luken continued to distort the facts. In our response, we again pointed out that the basic assumptions underlying the 1982 rulemaking concerning bumper weights, secondary weight, and gasoline costs no longer apply and cannot be justified.

2. Your organization recently performed crash tests on 1989 model vehicles at 5 mph. Did those crash tests indicate any damage to the safety-related features of the vehicle, such as the lights, fuel systems, exhaust systems, steering, or braking systems?

[redacted] in at least one of the tests. In addition, other damage that affected safety-related components included:

- The hood lock support was damaged and had to be repaired so that the hood latched properly (1989 Daihatsu Charade, 5 mph front into barrier test).

- The rear window was broken and had to be replaced (1989 Geo Metro, 5 mph rear into pole test).

- The smaller of two windows in the tailgate was broken and had to be replaced (1988 Honda CRX, 5 mph rear into pole test).

Damage in our 5 mph tests generally does not extend to the point where exhaust, braking, steering, cooling, and fuel systems are affected. However, crash tests conducted in earlier years at 10 and 15 mph have shown that stronger bumpers complying with the 5 mph standard were effective in preventing or minimizing damage to such components in these higher speed impacts.

3. Please provide any suggestions you may have about pedestrian safety and vehicle design to minimize pedestrian injury.

Vehicle design, as well as roadway design and lighting, can affect pedestrian safety, especially that of young children. A study sponsored by the Institute in 1979 found that reducing the stiffness -- increasing the flexibility -- of the fronts of vehicles could reduce severe injuries to child pedestrians (Ashton, 1979). The study used data from hospital and police records to compare the location of contact with the overall injury severity. Very young children were more likely to be killed than older children because a young child sustains a direct blow to the head from the relatively stiff front edge of the hood whereas an older child's head strikes the top surface of the hood. The author concluded that reducing the stiffness of the vehicle front structure should result in a reduction of the incidence of severe injuries.

NHTSA research to develop countermeasures to reduce pedestrian head injury was reported at the 1987 Experimental Safety Vehicle Conference (Kessler, 1987). Model year 1982-86 production vehicles were tested to determine the head injury potential of various hood and fender impact regions for differently designed vehicles. The study found wide variation in predicted injury severity for adults and children. The study concluded that for head impacts in the hood-fender areas "the full-cover design (hood/fender seam on side of car rather than on top) offers the potential for significant injury reduction over the conventional hood/fender designs."

4. Please provide any suggestions you may have about methods of preventing head injuries, particularly in side impact crashes.

As noted in our testimony, preliminary data from an Institute study in Charlottesville, Virginia indicate that a substantial proportion of all serious injuries sustained in side impacts are to the head. Another Institute study found that more than half of all people killed in side impact crashes had head injuries. As our comments to NHTSA on October 18, 1988 (Contained as Attachment 1 to the testimony of April 5) stated, the A-pillar and roof side rails are the most common contact points for head injury for occupants seated on the struck side of the vehicle; impact with the other vehicle also features prominently.

NHTSA's Preliminary Regulatory Impact Analysis of the Advanced Notice of Proposed Rulemaking for the Side Impact Protection Upgrade (Docket 88-06, Notice 3) prepared in May 1988 suggests several vehicle-based countermeasures for side-impact head injury. For example, testing by NHTSA showed that the simple countermeasure of padding potential head impact areas can effectively reduce head injuries. Tests were conducted with molded pads bonded onto the A-pillars of test vehicles. In the 20 mph tests, the effectiveness of padding the pillars ranged from 45 to 55 percent, and the effectiveness ranged from 22 to 64 percent in 25 mph tests. Tests also were conducted with glass-plastic glazing materials in side windows, which showed promise for reducing head injury from contact as well as ejection. Strengthened door locks would also reduce head injury from ejection.

Senator **Bryan**. Thank you very much, Mr. O'Neill.

Mr. Snyder.

STATEMENT OF DAVID SNYDER, COUNSEL, AMERICAN INSURANCE ASSOCIATION

Mr. **Snyder**. Thank you. Chairman Bryan, Senator Danforth, Senator Gorton, and members of Subcommittee staff, ladies and gentlemen:

Prompt enactment of S. 673 with a few minor changes is one of the most significant direct actions Congress can take to reduce auto insurance losses and thereby moderate auto insurance rates, short of enacting a no-fault system.

Automobile insurance losses and related expenses have increased more than 75 percent since 1982, leading to a slightly lower increase in auto insurance rates nationally. The increases in losses and rates have been most severe in the most congested parts of the country, the East and West Coasts and in many urban areas.

This has led to political problems for many public officials and so-called solutions, such as California's Proposition 103, which threaten the continued viability of the private insurance system in the United States, while ignoring the tragic losses which are the real root cause of all auto insurance problems.

On behalf of the American Insurance Association and its 204 members, which write approximately 17 percent of the commercial and private passenger auto insurance in America, we appreciate the opportunity to be here today to support real solutions that address the real root cause of auto insurance problems: the carnage on our highways, motor vehicle accidents, deaths, injuries, and property damage.

This is a toll we could never tolerate and it now is a "luxury" we can no longer afford.

S. 673 is one such real solution which strikes at the core of auto insurance losses. The raw materials of auto insurance prices are motor vehicle accidents and the resulting death, injury, and property damage claims. The actual cost of each claim is determined by lawsuit, medical care, and auto repair expenses.

To reduce losses, there are really only three alternatives: prevent the losses in the first place, reduce the costs of these losses after they occur, or both. We all benefit more from preventing the tragedies in the first place than by economizing on picking up the pieces afterwards.

Insurers are serious about motor vehicle safety. We fund the Insurance Institute for Highway Safety, the Highway Loss Data Institute and the Insurance Information Institute, which do research and communications on safety. Insurers and their associations engage in public education and information activities and work for safety legislation here and in every state capital.

Insurance underwriting and rating reward safe drivers and less damageable vehicles, provide discounts for air bags and anti-theft devices, while providing economic disincentives for bad driving and expensive cars to repair.

But insurers are severely limited in our ability to alone police highway safety because of the large numbers of uninsureds in some areas and the take-all-comers assigned risk plans in virtually every state.

We strongly support S. 673 because it is a real solution to auto safety and auto insurance problems. The crashworthiness rating program in S. 673 is needed by consumers to make more informed choices. We are concerned, however, that as drafted the program may take too long to implement, up to three years, and is too highly conditional.

The requirement for damageability disclosure and five mile per hour bumpers could have a more immediate and favorable impact on reducing insured losses than any other provision, since about 50 percent of auto insurance losses and premiums go to repair vehicles.

Improved side impact protection and tougher safety standards for vehicles now being used as family cars, such as small trucks and vans, are essential and are provided in the bill.

S. 673's provision allowing judicial review of NHTSA's denial of petitions for defect notices and rulemakings is the most significant procedural protection the public can have to assure an open process and progress on motor vehicle safety.

We urge consideration for inclusion in the bill of an incentive program for the states to lower the acceptable level of blood alcohol from .10 to .05.

We also suggest consideration of requiring that air bags be installed, or at least be available, on every make and model of automobile within the foreseeable future. There is no reason why those who can least afford to pay for vehicles should be the ones denied the greatest protection.

We also urge additional truck safety legislation, especially mandating anti-lock brakes on all new trucks in the early 1990's, as an effective response to the big truck accidents that continue to happen with numbing frequency on the Washington Beltway and many other major highways.

Insurers are joining with consumers to an unprecedented extent to look at the reasons for high auto insurance rates and to determine what can be done to bring those down. Accordingly, we ask to be made part of the record[3] the Consumer Health and Safety Agenda, especially the motor vehicle safety section.

As you will see, the bill now before you today would enact and implement the major motor vehicle safety recommendations of that joint consumer and insurer effort.

In conclusion, we are anxious to reduce auto insurance rates and the losses they reflect. S. 673 with a few minor amendments is not only good public policy, it is good economic policy and good humane policy as well.

Thank you.

[The statement and questions and answers follow:]

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[3] The attachment was not reproducible.

STATEMENT OF DAVID F. SNYDER, COUNSEL, AMERICAN INSURANCE ASSN.

Mr. Chairman and Members of the Subcommittee:

The 204 member companies of the American Insurance Association write 17% of the nation's automobile insurance. We are pleased to have this opportunity to testify in support of S.673 and generally on the subjects of motor vehicle safety and automobile insurance.

The raw materials of auto insurance prices are highway accidents, and the resulting death, injury and property damage claims. The actual cost of each claim is determined by lawsuit, medical care, and automobile repair expenses. The rapidly inflating costs of each claim combined with the unabated toll of accidents, deaths, injuries and damage are the root cause of all automobile insurance problems.

To reduce insured losses, there are only three alternatives: prevent the losses in the first place; reduce the costs of these losses after they occur; or both. By preventing a significant number of accidents and death, injury and damage claims, we could reduce overall insured losses, never mind inflation in health care, lawsuit and auto repair costs per claim. On the other hand, reducing the cost of each claim through no-fault, health care and auto repair cost containment measures could also significantly reduce insured losses even if we did nothing more on motor vehicle safety. Various combinations of both could reduce losses as well.

Because society benefits more from preventing losses in the first place than from economies in paying for them afterwards, the surest and most desirable route to lower rates is highway safety.

THE PROBLEM

Increasing Losses Are The Real Auto Insurance Problem

83% of the premium dollar is paid out in losses and related expenses, so the real culprit behind rising auto insurance rates is the losses. Over-all car insurance claims and related expenses have increased 75.1% (and premiums have increased 74.8% from 1982 to 1987). There have been few, if any, profits in auto insurance during this period. For example, the National Association of Insurance Commissioners found a 7.5% operating loss, which after investment income and taxes netted out as a 2/10s of 1% profit, from private passenger auto insurance in 1987. And that was a better year than most.

Standard and Poor's found that auto insurance profits do not compare favorably with many other industries and concluded that: "Based on S & P's financial analysis, on a national basis the insurance industry is clearly not reaping windfall profits nor is it sustaining huge losses in personal automobile coverage." Auto insurers general expense level is also significantly less than other industries, such as banks.

Insured Losses Have Increased 75% Since 1982

Private passenger auto insurance losses and related expenses rose from $30.2 Billion in 1982 to $52.3 Billion in 1987, a 75.1% increase. To cover the losses, insurance premiums rose slightly less than 75% during those 6 years. The staggering increase in losses was led by a 90% increase in bodily injury liability losses and related expenses, reflecting sky-rocketing health care and lawsuit related costs.

First party medical claims have also increased dramatically. During 1983-1988, the average cost of such claims increased 57.1% while the average cost of a bodily injury claim increased 71.3%. In both cases, the increases have been caused more by the increased severity of each claim (+48% for bodily injury liability and +42.5% for medical) than by the increases in the frequency of claims (+15.7% for bodily injury liability and +10.2% for medical).

While the rise in auto insurance losses is driven in part by the claims for deaths and injuries, auto repair claims costs have increased substantially as well. The over-all 47.8% increase in collision losses from 1983 to 1988 is totally the result of the 48% increase in the severity of the claims, while the frequency has even decreased slightly.

Insured Losses Reflect Highway Safety

The subject of auto insurance begins and ends with highway safety. The day of this hearing, an average of 126 Americans will be killed and 5,100 will be injured in highway accidents.

The primary root cause of auto insurance problems is the level of accidents, deaths and injuries on our highways. After a downturn earlier in the 1980s in the number of fatalities, 1987 showed 46,386 killed (5% more than the prior 5 year average) with more than 1.8 million disabling injuries. There were 9 million more accidents in 1986 than there were in 1980, caused in part by 20 million more registered vehicles.

While more people are wearing seat belts and air bags are installed on more cars, airbags are still not available at all in many cars. Driving speeds have increased in many parts of the country, resulting in an average 19% increase in fatalities on rural interstate highways. Car designs still allow too many serious injuries and cars are much more expensive to repair. Drunk driving remains a major contributor to highway accidents, deaths and injuries. Big truck accidents continue to block main arteries for hours and grab headlines in many parts of the country. In other words, highway safety is a mixed picture, with some gains, neutralized by losses in other areas.

Even while we emphasize the economic aspects of this dismal record, we should never forget the human suffering that we must prevent. Several examples come to mind. I wish you could have been with us when, as an ambulance crew, we worked in a futile effort to save members of a family whose car had hit a bridge abutment. I attempted resuscitation as I held the mother's lifeless body in my arms. She died because of a six inch laceration in her neck caused by her impact with the interior of her car, cut as though with a butcher's knife.

Or, I wish you could have been with us as we attempted to resuscitate the sister-in-law of a man whose family was virtually wiped-out in a head-on collision caused by a drunk driver. Apparently, the family was out on a short trip that summer night and the father was convinced by his children to go into a roadside stand to buy ice cream. His family finished the ice cream, had pulled-out back onto the road and within 100 yards was struck head-on by a drunk driver. I think the father knew that his wife had died almost instantly, that his sister-in-law was going to die, and that several of his children were seriously injured. With tragic irony, the father blamed himself: "If only I had not stopped to get the kids ice cream."

Since these tragic events, 500,000 people have been killed and many millions injured, thousands for life, on our highways. Whatever we do, let us not lose sight of the fact that we owe a profound duty to the public -- the future victims -- to move forward together to create a safer future.

Insured Losses Reflect Lawsuit, Health Care And Auto Repair Costs

The costs of each injury have skyrocketed, as a result of lawsuit and health care related costs. Earlier this month, the All Industry Research Advisory Council (AIRAC) issued a new report, "Compensation for Automobile Injuries in the United States" which demonstrates the extent to which the legal system contributes to automobile insurance losses and premiums.

Lawsuit Costs

According to the AIRAC report, "the cost of injuries caused by automobile accidents rose more than 140% between 1977 and 1987, far exceeding the 85% increase in the cost of living as measured by the Consumer Price Index." The average bodily injury liability claim skyrocketed from $3,376 to $8,074.

Attorney representation in bodily injury claims increased from 31% in 1977 to 45% in 1987, resulting in higher numbers of soft tissue injury claims, and higher awards, although very little of this additional money ends up in claimants' hands. Claimants with attorneys receive gross settlements about 7% higher than those obtained by claimants without attorneys, but an average of 31% is gobbled up by attorney fees and other legal expenses. For backsprains or strains, gross settlements are $5,336 higher when the claimant is represented by an attorney, but the claimant nets only $612 more. Likewise, attorney involvement resulted in much longer settlement times.

Health Care Costs

The effect of health care cost inflation has been no less significant than lawsuit related costs. Medical expenses are 70% of the economic losses for claims other than fatality and permanent total disability claims. Health care costs have been inflating at more than 10% per year, far above the Consumer Price Index. The inflation has been most severe, however, in hospital costs which are often a part of treating automobile accident injuries. Health care cost inflation forces up medical payments coverage costs, but also inflates bodily injury liability costs, because liability cases are often settled as a multiplier of health care expenses. So, a $100 increase in medical care yields a $211 increase in the liability claim values.

Auto Repair Costs

Auto repair costs have been increasing. The average cost of a new car has increased significantly since 1976 and today's automobiles are more expensive to repair, as a result of unibody construction and more complex electronics. Hourly repair rates in some areas exceed $50. Meanwhile, the auto manufacturers are attempting to restrict the use of competitively priced repair parts through a massive, national advertising and legislative campaign. Finally, hundreds of dollars of preventable damage routinely occurs because of unacceptably weak bumpers.

Auto Insurance Losses Are Particularly Severe In Some Areas

The level and rise in losses and prices of automobile insurance, however, have not been evenly distributed across the country. The AIRAC study documents the highest auto injury costs per insured car were in New Jersey, California, Maryland, Pennsylvania, Delaware, Arizona, Massachusetts, Nevada, District of Columbia, Louisiana and Connecticut. With few exceptions, these states line the East and West Coasts, with the lowest states being generally interior states such as Nebraska, Wyoming, Kansas, Idaho, South Dakota, Iowa, Maine, North Dakota, Arkansas and Alabama.

There is a pattern of congestion, high losses, combined with high levels of attorney involvement and health care costs on both coasts. This has been particularly shocking to West Coast motorists, many of whom I believe think of themselves as free spirited drivers on wide open stretches of freeway. In fact, insured losses and traffic congestion make the West Coast more like the East Coast than any earlier "frontier".

Literature from non-insurance sources can be very helpful in understanding developments which create the uneven geographic surge in auto related costs and losses. The problems in California's automobile transportation system are now well documented. According to one official "the state's transportation system is bursting at the seams.", with the principal reasons cited for the increased congestion including: rapid population growth, a slowed pace of highway construction, inadequate mass transportation and land use policy decisions, according to a April 15, 1988 New York Times article.

The February 18, 1989 issue of the Economist carried some startling revelations in a story headlined "The City, The Commuter and The Car." In 1975, 40% of rush hour traffic on American urban interstates was "congested"; today, it is 65%. Suburbanites average 24 miles per hour, not much faster than the Urbanites' 21 miles per hour. Suburbanites also drive 12 miles to work, rather than 9, so they spend more time behind the wheel. There has been a 30% increase in the volume of car travel from 1976 to 1986. The factors leading to such increases include development, land use decisions which separate homes from business, lack of mass transit and habits.

The Sacramento Bee on February 21, 1989 carried a story headlined "Overwhelming Traffic Drives L.A.'s Way of Life." The article reported that: "traffic has become the great equalizer, the common denominator of all Angelenos...it controls people's lives and is the source of jokes and daily tales of horror and heroism...one reason traffic is so bad is the lack of public transportation. Another is that rising housing prices have forced ...one way commutes of fifty to sixty miles to Los Angeles and Orange County; where the jobs are."

The AIRAC study found that injury producing auto accidents are predominantly an urban phenomena, with about 52% of the injuries occurring in central cities and suburbs and 29% in medium sized cities. Only 19% of injuries arose from accidents in small towns and rural areas, down from 31% ten years earlier. The increased congestion usually means high accident losses and resulting high insurance rates.

A recent study, entitled "Factors Affecting Urban Auto Insurance Costs" documented the steeply higher losses in some urban areas when compared to the states in which they are located. For bodily injury liability, Baltimore, Boston, Milwaukee, Cleveland, Chicago, Los Angeles, Miami, Newark, New York City, and Philadelphia had average claim frequencies more than 50% higher than the respective statewide figure. For property damage liability, Baltimore, Boston, Detroit, Los Angeles, Newark and Seattle and had average claim frequencies more than 25% higher than the respective statewide frequency.

In sum, as a result of congestion, lack of government planning, land use patterns, and other factors relating to economic growth, automobile insurance losses tend to be clustering in the most populous areas, which are the East Coast and the West Coast. Further, there is an even greater concentration of traffic and losses in and around many urban areas than in other parts of the states. Where the two phenomena intersect, an explosive loss situation, such as in Los Angeles, is virtually guaranteed.

The Public Is Reacting To The Problem Of Increasing Insurance Rates That Reflect The Losses

On Monday, April 3, the Washington Post carried a story on local activism on transportation issues. The interest in automobile insurance can be viewed as part and parcel of growing frustration on the part of the public with respect to a whole host of transportation problems, including congestion, highway construction, safety and insurance prices. If this anger focuses on auto insurance prices alone, and results in arbitrary price rollbacks in the face of mounting losses and or provides for a virtual state takeover of private enterprise insurance, (such as California Proposition 103), the automobile insurance system in this country may well be jeopardized. The collapse of this self-contained, non-tax payor supported system would create a crisis no less significant than the savings and loan disaster now confronting the country. No one would benefit from such a result. This provides yet another reason to reduce insured losses and the resulting insurance rates.

THE SOLUTION

Insurers Are Serious About Motor Vehicle Safety

Last year more than 1,100 automobile insurers paid $52 billion in benefits and related expenses to millions of accident claimants.

The insurance industry also provides millions of dollars to fund some of the best safety research and communications through the Insurance Institute for Highway Safety and the Highway Loss Data Institute. We also engage in public information and education programs on safe driving. On a daily basis, the insurance industry works in Washington and every state legislature for enactment of important safety and loss reduction measures.

For example, five times in the last session alone, we testified before Congressional Committees on automobile insurance and each and every time, focused on highway safety. We worked on highway safety measures and loss control measures in several states, and helped see a seatbelt law enacted in Pennsylvania, after more than three years of effort. We cooperated with the American Automobile Association and the American Trucking Associations, to support legislation in the recently enacted Drug Bill on drunk driving and commercial motor vehicle safety.

Underwriting (whether to insure a risk) and rating (what price to charge) heavily reflect driving experience and the kind of car that is driven. For example, many companies will turn down or nonrenew a recently convicted drunk driver. Some will refuse to write sports or "high performance" vehicles. If a person is accepted, rates may be steeply higher if the insured car is involved serious accidents, or if the insured is convicted of a moving violation. Likewise, the type of car also will lead to higher or lower rates. If a car model exhibits worse than average damageability, it will increase in relative rates to insure. There are even discounts for automatic equipment such as approved antitheft devices or airbags.

Insurers Are Limited, However, In Their Ability To Directly Reduce Losses

Nonetheless, there are severe limits on the ability of insurers to bring about safe driving or safer vehicles through underwriting or rating. To begin, a lot of people don't even buy insurance. Many thousands of other motorists are insured by residual market plans which are set up by state law to insure virtually every driver with a license and every registered vehicle, regardless of performance and regardless of type of vehicle. That is why there must be a uniform floor of safety below which vehicle performance and driver performance may not descend. Only the federal government can effectively perform this role. All citizens will benefit by reducing the waste that results from preventable motor vehicle accidents, deaths, injuries and property damage.

Virtually all of the proposals that could significantly reduce the costs of accidents after they occur, including no-fault as a remedy for lawsuit related costs, copayments, deductibles and fee schedules for medical costs, and negotiated arrangements with cost effective auto repair shops, are extremely controversial wherever they are proposed. While we will continue with efforts to implement such reforms, we believe that society benefits most from preventing the accident, death, injury or damage in the first place.

Congress Has Worked Hard On Motor Vehicle Safety But The Job Is Not Finished

This Subcommittee and the Congress, generally, have a right to be proud of past highway safety efforts. Congress has helped encourage the states to enact seatbelt legislation and drunk driving legislation. Congress has required safer car and truck designs and Congress has acted to improve the quality of commercial motor vehicle drivers. Nonetheless, the current level of accidents, death, injuries and property damage is still unacceptable, especially when the cost of each death, injury and damage claim is skyrocketing. Parties, such as consumers, lawyers, doctors, public health groups, citizen groups and insurers which often feud violently over cost containment measures, unite in the common objective of highway safety.

S.673 Would Be A Major Step Toward Reducing Losses and Stabilizing or Reducing Auto Insurance Rates

While many people have heralded the "compromise" on air bags, the fact remains that consumers are not, nor will they be, able to buy airbags as standard or even optional equipment on many models of automobiles. We believe this is a tragic shortcoming of the existing accommodation on passive restraints. The "automatic" safety belts installed on cheaper models, are easily disconnected, and far less effective than airbag/seatbelt use combinations. If auto makers do not make reasonably priced airbags available on every model of vehicle in the very near future, we may urge the Congress to reopen this issue. The bill addresses some airbag issues through a required public education program.

Better side impact protection is urgently needed. S. 673 addresses this issue.

S.673 addresses the critical issue of crashworthiness by providing for a rating program. We think the bill is right on point in requiring an effective crashworthiness rating program by the Department of Transportation and prompt public dissemination of this information on a prompt basis. Even those who do not agree with improved regulatory standards for the safety of motor vehicles, ought to be able to agree with the public's right to know certain fundamental information, such as comparative crashworthiness, at the critical time of purchase and before.

S.B. 673 provides for such a program. We think, however, that the bill's timeframe is too long and the whole program is entirely too conditional. We would suggest a much more compressed timeframe for the program and a clear mandate to establish a full and effective crashworthiness rating program, like the mileage ratings which are readily available to all consumers on new car stickers.

More and more American families are buying vans, minivans and utility vehicles and using these as they once did station wagons and four-door sedans. Yet, they lack the protection that federal standards provide for more traditional family vehicles. There is simply no logical reason why a life saving standard, which applies to some passenger carrying vehicles, should not be applied to all others. Accordingly, we strongly support S. 673's provisions requiring multipurpose passenger vehicles to comply with the same levels of safety required of other passenger vehicles. "Multi-purpose passenger vehicle" should be defined in the bill, however, to include, but not be limited to pick-up trucks, vans, minivans, sport and utility vehicles.

Perhaps the most critical driver behavior element in the highway safety formula is drunk driving. Conservative statistics show drunk driving is a positive factor in 50% of all highway deaths -- my own experience is that 80% is a more accurate figure. While cars must be made more forgiving of error and more protective of occupants and others, drunk driving remains a major contributor to the deaths and injuries on our highways.

We supported last session's Omnibus Drug Bill provisions requesting the National Academy of Sciences to study the effect of reducing acceptable blood alcohol levels. In fact, we think there is enough scientific data to provide for reduced blood alcohol levels immediately, and would urge that the legislation provide financial incentives to the states for reducing acceptable blood alcohol levels. S.673 currently addresses drunk driving by providing for community education programs.

We support the bill's provision to allow judicial review of the denial of petitions for safety standard rulemaking and other actions by the National Highway Traffic Safety Administration. All too often petitions have been denied on grounds which should have been reviewed for adequacy by an impartial observer, such as a court. Accordingly, we support S.673's provision making the denial of a petition a final agency action subject to judicial review. This procedural change would be an important improvement in efforts to achieve the level of safety that the public deserves.

Because roughly one-half of auto insurance claims and related expenses are for property damage, reducing damage to vehicles is fundamental to reducing insured losses and rates. Current weak bumper standards allow hundreds of dollars of damage to many small cars from 5 mph crash tests. Accordingly, we support provisions on consumer diclosure of bumper impact capability and requiring bumpers to meet at least a 5 mph crash test standard.

We support S.673's provisions on a second recall notice, but it should be mandatory. We also support consideration of strong state inspection programs to maximize safety protection and minimize consumer hassle and expense.

Again, in recent weeks, in the Washington, D.C. area there have been major mishaps involving commercial motor vehicles, which have tied-up major arteries for hours. Happily, none of them resulted in the firey crashes that were the hallmark of similar accidents late last year. Nonetheless, environmental damage may have been done and thousands of area motorists were inconvenienced.

This kind of story repeats itself on a weekly basis across the country. In the 1990s, Europe will require trucks to have antilock brakes. While the Department of Transportation is doing some testing, progress is inadequate. There is enough scientific data to support the requirement for antilock brakes on all new trucks starting in the early 1990s, and we would respectfully urge the Congress to act to do so. We hope the Congress also enact truck safety legislature this session.

S.673 Should Meet Wide And Strong Public Support

The bill would implement many of the motor vehicle safety priorities set forth in the recently issued consumer/insurer

Consumer Health and Safety Agenda. The Agenda calls for action on safety belts and airbags, side impact standards, better safety standards for light trucks, vans and utility vehicles, speed limits, drunk and drugged driving, road hazards and truck safety.

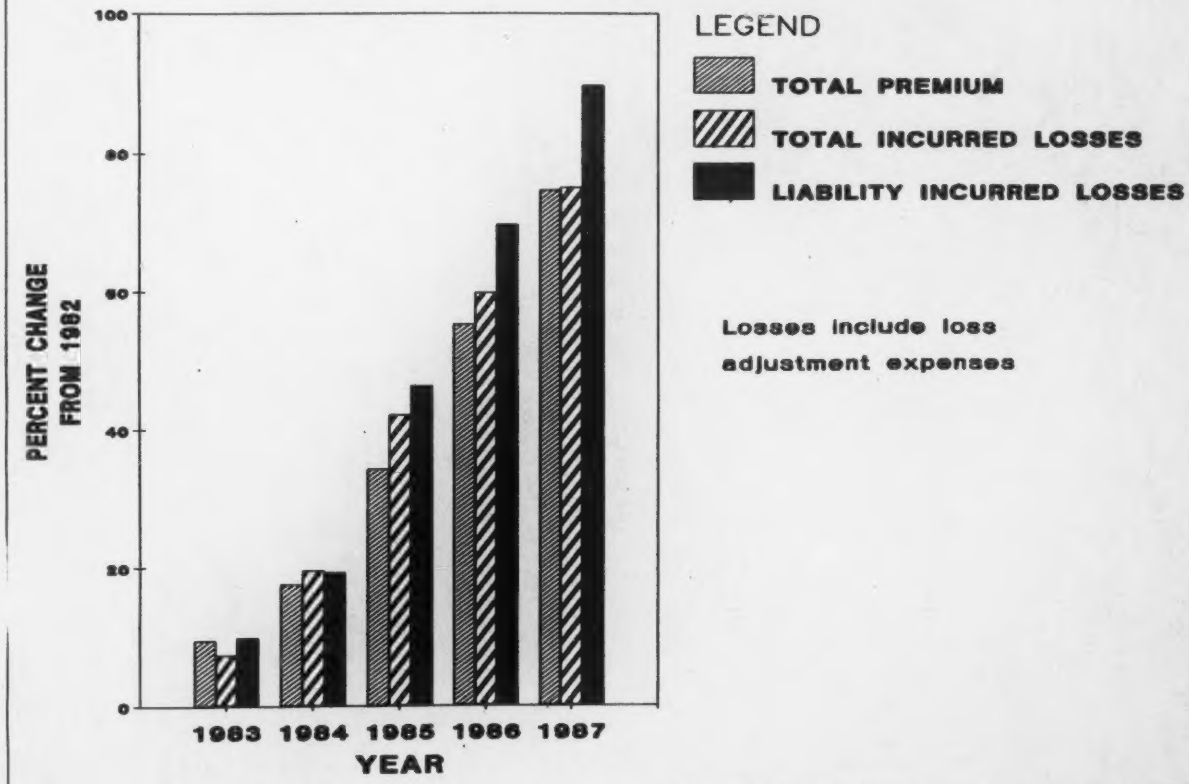
Conclusion

We respectfully urge prompt enactment of S. 673 with minor amendments. The bill could help the public achieve a better level of highway safety, help us achieve a better level of auto insurance premiums and help assure the continued stability of the auto insurance system.

Respectfully submitted,

David F. Snyder
Counsel

PRIVATE PASSENGER AUTO



Losses include loss adjustment expenses

SOURCE: Best's Aggregates & Averages 1988

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April 17, 1989

Honorable Richard H. Bryan
Chairman
Consumer Subcommittee
United States Senate Committee on
Commerce, Science & Transportation
Washington, D.C. 20510-6125

Dear Senator Bryan:

We are pleased to provide the following answers to the five questions included with your letter of April 7, 1989. As will be seen below, there are significant differences in automobile insurance rates and the premiums that people pay for collision and comprehensive coverages on their vehicles, depending on the damage and theft experience of those vehicles. Under programs of many insurers, automobile insurance physical damage rates, like all auto insurance rates, are an attempt to accurately reflect the risk of loss presented by each car and its drivers.

S. 673 is important because it improves motor vehicle safety and provides an excellent opportunity to reduce insured losses, thereby allowing insurers to pass on lower rates to consumers, as a result of competition or as a result of rate regulation in the several states. As we said during the hearing, enactment of S.673 in its present form, with a few suggested changes, is the most significant direct step that Congress can take to reduce insured losses and thereby help to reduce automobile insurance premiums, short of no-fault.

1. Please provide all information availabe to you about discounts offered by your member companies to customers with vehicles having bumpers that withstand impact at 5 MPH. Include in your answer any discounts available both prior to the effective date of the 5 MPH bumper standard and after the recision of the 5 MPH standard in 1982.

Many insurers do comparatively rate car models on the basis of damage and theft experience, although specific discounts are not generally offered strictly on the basis of 5 MPH bumpers. In fact, the auto makers do not routinely disclose to us which cars have 5 MPH bumpers.

WILSON H. TAYLOR
CHAIRMAN

ROBERT J. VAIRO
CHAIRMAN ELECT

ROBERT J. HAUGH
VICE CHAIRMAN

DEAN R. O'HARE
VICE CHAIRMAN

ROBERT E. VAGLEY
PRESIDENT

An example of how insurers base rates on the damage and theft experience of each model is the Insurance Services Office (ISO) program, which works like this. Twenty-one classifications of vehicle prices are established (27 for 1990 and later car models). Each of these classifications is assigned a numerical designation from one through twenty-one, termed a "symbol". For example, symbol 7 includes cars from \$6,501 to \$8,000. Symbol 8 cars are priced from \$8,001 to \$10,000.

When a model is first offered for sale, it is provided the symbol corresponding with its price. That symbol is quickly modified depending on damage and theft experience, and is reviewed once during each of the next two years, based on data compiled by the Highway Loss Data Institute and the ISO, which in turn are based upon loss reports from automobile insurers. A particular model can be moved up or down a total of three "symbols". The symbols are used as the basis for determining the premiums that people actually pay. Vehicles with more crash resistant bumpers, provided that the theft experience with the vehicle is not out of line and other elements of the car are not unusually prone to damage, should show a good loss experience and lower premiums.

Assume a car model is initially classified at symbol 13 (meaning the vehicle cost between \$17,501 and \$20,000). Based on its actual loss experience, the car model could be reduced to as low as a symbol 10 (a rate equivalent to a vehicle costing \$10,001 to \$12,500), which would result in a significantly lower insurance premium than if it had stayed at the higher symbol it was originally assigned on the basis of its price. To the contrary, a model with poor bumpers, assuming normal theft and otherwise normal damage experience, would be expected to increase its symbol ranking, up to three symbols higher than it was originally assigned on the basis of its purchase price. For example, very poor damage and theft experience could result in a vehicle costing \$10,001-\$12,000 rated as though it cost \$17,501 to \$20,000.

Many insurers have such programs to reflect differences in damage experience. Some use the ISO program and some have established their own systems.

To the best of our knowledge, there was a discount available for 5 MPH bumpers, which was eliminated prior to the recision of the 5 MPH bumper standard. Rhode Island has a vestige of the 5 MPH bumper discount for 1972-1976 vehicles.

2. Please provide your best estimate of the effect on insurance premiums if the 5 MPH bumper standard were to be reinstated. Your testimony indicates that, since a large percentage of insurance claims are for property damage, reinstatement of the 5 MPH standard should reduce both accident costs and insurance costs. Would those savings result in an actual reduction in customers' insurance premiums? If so, how much (either in total dollars or in percentage of the savings)? If not, why not?

Approximately 50% of automobile insurance premiums and automobile insurance losses cover damages to vehicles. Safety measures which prevent accidents in the first place, and reduce the resulting injuries, deaths and property damage are not only good public policy but they are some of the best actions that can be taken to reduce automobile insurance premiums, as well.

The comparative damage and theft experience of vehicles can have a significant impact on the premiums that people pay to protect those vehicles against collision and comprehensive losses. Here are several examples from the ISO program.

Because of the superior damage and theft results of the Grand Marquis and Chevrolet Caprice, the rate to insure those vehicles has been reduced roughly 50% from the original rate applicable to those two vehicles based on their prices, according to the ISO plan. Under the ISO system, both the Grand Marquis and Caprice have been reduced three "symbols" since the cars were introduced, producing a compound reduction of 15% in rates for each reduction in symbol.

On the other hand, for example, the experience with the Camaro, the Firebird, the Volkswagen Jetta and the Volkswagen GTI have been unusually adverse, resulting in an approximate 50% increase in the premiums (+ 3 symbols) to insure those vehicles compared to the premiums originally set, based on the purchase price of the vehicles. This correlates with the poor performance of the Volkswagen GTI and Volkswagen Jetta in Insurance Institute for Highway Safety low speed crash tests. In those tests, as reported on February 25, 1989, the Volkswagen Jetta sustained $2,105 in total damage, ranking it 7th worst among the 1989 small two-door cars that were tested. The Volkswagen GTI sustained $1,875 damage, ranking it 11th worst in the low speed tests reported on February 25, 1989. Because of their loss results, both the Volkswagen Jetta and the Volkswagen GTI cost much more to insure than they would if premiums were based solely on their comparative purchase prices.

3. Your witness testifed that many insurers are offering discounts to customers with airbag equipped vechicles. How is the percentage discount determined? Can customers realistically expect to see a reduction in their total auto insurance premium if they purchase an airbag equipped vehicle? If not, why not?

Most American Insurance Association member companies offer consumers passive restraint discounts. Currently, the ISO has a program available in virtually every state which provides a 30% discount off medical payments, or Personal Injury Protection (PIP) coverage, for full front seat airbags or automatic safety belts and a 20% discount for airbags or automatic belts which protect only the driver.

The discount is applied to the medical coverage, or PIP, portion of the automobile insurance premium, because that is the only portion of the premium that would be directly affected by use of passive restraints or automatic belts. On the other hand, liability protection covers the insured for suits brought by someone else who claims the insured injured him or her. It would be illogical to provide a discount on liability coverage for the insured's airbag or automatic belt, because the insured's injuries are not at issue.

4. What is the basis for an insurer's decision to offer a discount based upon a particular safety feature in a vehicle?

Although each company makes these decisions on its own, they are often based upon a review of data from the Insurance Institute for Highway Safety, the Highway Loss Data Institute, the insurer's loss data, shared industry loss data, and information collected by other organizations such as the United States Department of Transportation. Automatic equipment is more likely to be the basis of a discount because its presence is verifiable and it does not rely on human factors such as compliance, habit or law enforcement.

5. Are auto insurers currently offering discounts to their customers on the basis of safety features other than airbags?

At this time, discounts are available for passive restraints including automatic seat belts and airbags, for the completion of driver training courses in some states and for approved anti-theft devices. Antilock brake discounts may also be under consideration. Nontheless, the rating system is constantly evolving. If conclusive data should become available on significant loss reduction benefits from other safety devices, insurers can be expected to consider other safety equipment related discounts.

Once again, we thank you and the Subcommittee for the opportunity to support important highway safety and loss reduction measures, such as S. 673, with minor changes. We hope the above answers have been responsive to your request. Please feel free to contact me for additional information.

Sincerely,

David F. Snyder
Counsel
American Insurance Association

Senator **BRYAN**. Mr. Reagan.

STATEMENT OF JAMES E. REAGAN, CHAIRMAN, DRIVER SAFETY COMMITTEE, NATIONAL ASSOCIATION OF INDEPENDENT INSURERS

Mr. **REAGAN**. Thank you. Senator Bryan, Senator Danforth, Senator Gorton.

I am here today speaking as a representative of the National Association of Independent Insurers, as well as for GEICo. NAII is a trade association representing about 550 property casualty insurance companies. We write about a third of all of the automobile business in the United States.

NAII has been a leader in the 20-year battle for automatic occupant crash systems, such as air bags, and we are pleased to support S. 673. NAII and GEICO have long been proponents of the automatic protective systems, particularly air bags, to protect passengers in violent crashes. And we fought alongside others in the industry long and hard in the early 1980's to preserve Federal standards mandating installation of such systems.

As a direct result of these efforts, we are beginning to see automatic restraints in automobiles today, and we commend the automobile manufacturers for beginning to introduce this most important of all safety equipment.

GEICO and the NAII companies are engaged in active policyholder communications, programs to educate consumers about the lifesaving potential of air bags, as well as other safety topics. The NAII has supplied companies with sample messages on these topics, to be used in company newsletters, bills, and stuffers. I am pleased to submit these for the record.[4]

Sadly, NHTSA has done little in the area of consumer education about air bags. Your bill would authorize NHTSA to spend up to $10 million to educate consumers about air bags, as well as anti-drunk driving programs. We support this effort.

Now that automatic crash protection systems are being introduced into the fleet, consumers need to know as much as they can about these systems to make informed purchasing decisions. If consumers are not aware of the lifesaving potential of air bags, they may be unlikely to choose cars which have this technology.

GEICO and the NAII are very active at the state level as well in supporting effective safety belt use laws and anti-drunk driving initiatives, such as administrative license revocation and suspension laws. Your proposal to assist funding of state seat belt and child restraint programs, as well as anti-drunk driving measures, we think will help significantly in these efforts.

Another battle that we have been involved in since the 1980's was trying to preserve the Federal five mile per hour bumper standard, about which you have heard quite a bit here today. The standard should be reinstated, as your bill provides.

At a minimum, NHTSA should develop a program to provide consumers with information on bumper strength for comparative shopping, which the agency promised to do when they rolled the provision back.

Other provisions of the bill—side impact protection, extending safety standards to light trucks and vans, and developing a crashworthy rating system for consumer comparisons—are also worthy goals. The agency has been studying the side impact issue for far too long. A prompt decision needs to be made as to what to do next to improve safety.

Light trucks and vans are increasingly being used as passenger cars. My daughter owns one. Yet the occupant protection rules do not apply to them. Currently, the only reliable consumer information on crashworthiness is the IIHS bumper crash tests, but these do not cover the whole range of vehicles on the road. Crashworthiness information is important information, useful in making a purchasing decision.

We at NAII are very concerned about auto insurance cost containment issues. I have a booklet to offer for the record describing the problem areas, entitled "The Nine Circles of the Inferno."

If we can make safer vehicles and induce drivers to be more safety-conscious, the logical consequence should be reduced losses, which in turn should control the rising insurance costs.

It is very difficult for us to predict accurately today what the dollar savings of the proposals will be in actual experience. However, I can tell you that we feel so confident about the lifesaving, injury-reducing potential of air bags and other automatic restraints that there are a number of our companies which actually offer discounts at the present time for purchasers of these types of cars.

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[4] The submissions were not reproducible.

In any event, I can assure you that whatever savings actually result in reduced loss costs will be reflected in premiums as they are realized, because of the highly competitive nature of our industry.

I appreciate the opportunity and I would be happy to take any questions.

[The following information was subsequently received for the record:]

POST-HEARING QUESTIONS OF SENATOR BRYAN
FOR
AUTOMOBILE INSURANCE REPRESENTATIVES

1. Please provide all information available to you about discounts offered by your member companies to customers with vehicles having bumpers that withstand impact at 5 MPH. Include in your answer any discounts available both prior to the effective date of the 5 MPH bumper standard and after the recision of the 5 MPH standard in 1982.

1. The way insurance companies give credit for 5 mph bumpers and other design improvements is through premiums based on experience rating. Insurance discounts for particular design features are not the general rule in the industry, because of the difficulty in assessing their future potential impact on losses. Most auto insurers today rely on make and model experience rating to determine appropriate premiums. To the extent that a particular car's bumper strength or other design feature helps or hurts its overall experience rating, it is taken into consideration in setting premiums.

Multitiered discount plans in the 5-20% range on the physical damage portion of the premium (due to differing bumper styles) were offered in the early 1970's, prior to the federal bumper standard, in an effort to offer economic incentives to manufacturers to improve on the "egg shell" exteriors being offered at the time. Not much improvement was noted, however, until the state and federal governments started setting, or considered setting, minimum requirements for bumper protection. Those discounts remained in place until the federal rule went into effect, after which they were rolled into the overall experience base.

2. Please provide your best estimate of the effect on insurance premiums if the 5 MPH bumper standard were to be reinstated. Your testimony indicates that, since a large percentage of insurance claims are for property damage, reinstatement of the 5 MPH standard should reduce both accident costs and insurance costs. Would those savings result in an actual reduction in customers' insurance premiums? If so, how much (either in total dollars or in percentage of the savings)? If not, why not?

2. It is very difficult to quantify and put a dollar figure on the impact of design improvements, but a simple comparison of the standards and the recent crash test results of IIHS paint a graphic portrait of the impact of weakening the bumper standard.

A 2.5 mph bumper is not just half as effective as the original 5 mph bumper required previously by DOT, it is about 4 times less effective, due to the laws of physics. Stated another way, the resulting decreased protection is on the order of 75%.

If DOT were to reinstate the 5 mph standard, we believe many companies would take this into account in their pricing decisions. Whatever future savings actually result in reduced loss costs by reason of such design changes as improved bumpers will be reflected in premiums as they are realized, because of the highly competitive nature of our industry.

3. Your witnesses testified that many insurers are offering discounts to customers with airbag-equipped vehicles. How is the percentage of the discount determined? Can customers realistically expect to see a reduction in their total auto insurance premium if they purchase an airbag-equipped vehicle? If not, why not?

3. When first offered, discounts for airbags were "judgmental" discounts based on a company's belief that airbags would significantly reduce deaths and serious injuries. This was an unprecedented effort by individual companies in taking a risk to encourage car makers to build into cars a safety feature with significant potential to cut losses.

Whatever future savings actually result in reduced loss costs by reason of such design changes as air bags will be reflected in premiums as they are realized, because of the highly competitive nature of our industry.

4. What is the basis for an insurer's decision to offer a discount based on a particular safety feature in a vehicle?

4. Companies make individual decisions on discounts for special safety features, such as air bags, based on the belief they will reduce losses significantly. As insurers of automobiles, our companies have a keen interest in promoting highway safety. Company employees see the tragic consequences of motor vehicle crashes on a daily basis, so they are aware first-hand of the human suffering that results. Companies also have an economic interest in that they are constantly looking for ways to reduce costs of the products they sell, otherwise increasing prices would make them unaffordable.

5. Are auto insurers currently offering discounts to their customers on the basis of safety features other than airbags?

5. Auto insurers are offering discounts to their customers for automatic seat belts, in addition to airbags, and some are even offering them for people who attest to using seat belts. Some companies are also beginning to offer discounts for cars with antilock brakes. These incentives are generally promoted by individual companies in today's hotly competitive insurance market.

During the hearing you asked us to supplement the record with suggestions on what safety requirements might bring the biggest payoff.

NAII believes a requirement that all new cars be equipped with full front airbags would have the biggest payoff in terms of reducing deaths and serious injuries on our nation's highways. After that, in terms of priorities, we would recommend extending the federal safety standards to light trucks and vans, and improving side impact protection.

Senator **Bryan**. Thank you very much, Mr. Reagan.

Let me now ask each of you, if you can do so, rank in order, one, two, three, four, five, et cetera—and if you do not have this information readily available at your fingertips, please send it to us to be included in the record—what new standard ought to be adopted in terms of achieving maximum safety and protection to automobile drivers, or a deferred standard that might be on the books that ought to be implemented?

And rank in order, if you will, the most important from one through four, five, or whatever you might want to have. Mr. O'Neill, let us start off with you if you can.

Mr. **O'Neill**. I am not sure I could give you the top seven. But certainly I would say that very high on the list would have to be extending the automatic restraint standards to light trucks and multipurpose passenger vehicles. We do not need new science to do that. We just need to apply the technology to those vehicles. It can be done and it should be done.

Senator **Bryan**. That would rank at or near the top in your judgment?

Mr. **O'Neill**. That has to be at or near the top.

Senator **Bryan**. Okay.

Mr. **O'Neill**. And moving forward rather quickly with upgraded side impact requirements would come close behind that.

Senator **Bryan**. Anything else, Mr. O'Neill, that comes to your mind?

Mr. **O'Neill**. I can go on with a very long list. I do not know how to prioritize them all. But certainly rollovers for small utility vehicles are a very serious problem for that class of vehicles. It is a problem that must be addressed.

These vehicles have the highest fatality rates of any vehicles, or passenger vehicles, on our roads. That needs attention.

And I would agree with Joan Claybrook that we can do things to protect pedestrians by redesigning front ends of passenger cars. There are opportunities in many areas that we can reduce the toll.

Senator **Bryan**. Mr. O'Neill, let me give you an opportunity to supplement the record if you care to do so.

Mr. Snyder, your comment? Agree, disagree, or substitute priorities?

Mr. **Snyder**. Mr. Chairman, I would generally agree, and I would also emphasize the importance of better bumpers and a better performance on the part of vehicles generally.

Senator **Bryan**. Okay.

How about you, Mr. Reagan?

Mr. **Reagan**. I think I have to agree. I think they picked the primary ones. I would add probably anti-lock brakes to the list.

Senator **Bryan**. Let me extend to Mr. Snyder and Mr. Reagan an opportunity to reflect upon your comments, and any supplementary comment that you want to make will be included in the record.

Now let me go to the direct issue of insurance premiums. Mr. Snyder, you made reference to Proposition 103. And those of us from the West are very familiar with that, and some of us even recall back to 1978 there was a Jarvis-Ganz proposition that swept over the Sierras and impacted the Nation.

I think your industry might very well have the Proposition 103 parallel in mind as you move forward to address some issues that are of concern to American consumers.

There is a great opportunity, it seems to me—and I commend you as well as Mr. Reagan and Mr. O'Neill and the organizations that you represent for the good work that you are doing. But one thing that I think would help improve consumer perception, if there is a way in which you can quantify and tell the consumer that, if he or she buys an automobile with this system, this standard, you can translate into quantifiable dollars that the insurance premiums that those automobile purchasers will be paying will be less.

Can you, Mr. Snyder, take that one for openers?

Mr. SNYDER. Insurers offer set, readily known discounts for automatic devices such as anti-theft devices and air bags. When you get into programs which involve enforcement, public education, and compliance, savings are extremely difficult to predict in advance.

In fact, let's talk about another issue: the damageability of one model of car versus another one. When a person goes in to buy insurance the reference materials that are used by the agent do reflect different levels of costs for insuring different types of motor vehicles. And as the damageability experience of each model becomes known, the cost of insuring that model will go up or down based on that experience.

So those factors are used. They are a part of determining the premiums that people pay. And in an environment where there is an effort to charge better risks—and when I mean risks, I mean the combination of the vehicle and the people that drive it—there is a strong incentive today in the marketplace, but also a generally strong public incentive, to charge the lowest rates possible.

I think you have strong competitive and regulatory pressures to do exactly what you are saying. It is also an issue of communications. We work to try to inform the public generally through disclosure of the different crash results, and those, because of the IIHS and the general media, do get out to people.

But clearly, you are looking at better communicating these kinds of facts to policyholders in advance of when they come in to buy insurance.

Senator BRYAN. Mr. Snyder, I really do not mean to impugn your efforts or your organizations. But I would respectfully suggest that more needs to be done to fine-tune that message, so that, for example, you have testified as to the efficacy of the five mile per hour bumper standard. American consumers need to know those automobiles which do or do not meet that standard and here is precisely what it means in terms of your collision insurance premium.

I was impressed, and I am sure that each of you has seen the issue of the "Status Report 'of the Institute for Highway Safety, Mr. O'Neill's publication. And in it he and the Institute outlined the comparative damage assessments based upon the bumper—the absence of the bumper standard, and make the rather convincing point, I thought, that in 1981 the Ford Escort withstood damage in the same series of tests, and the question that is asked rhetorically: Why do not the 1989 models?

My point, Mr. Snyder, without appearing to lecture, is that it seems to me that those that make insurance available to the general public need to say: Look, if you get a five mile per hour bumper standard, we would reduce your premium by X number of dollars for whatever the particular model is, recognizing that different models may have more expense attached in terms of repair, but to quantify what the savings would be to the American consumer.

Mr. **Snyder**. Thank you. That is an excellent comment and I am sure that I will communicate it to the rest of the industry, and the importance that you attach to that.

Senator **Bryan**. Thank you, Mr. Snyder.

Mr. **O'Neill**. Could I just add to that, Senator Bryan, that when the standards were coming into effect, the first five mile per hour standards, there were discounts offered by insurers and well publicized. They eventually got rolled into the overall rates because all cars had five mile per hour bumpers.

Now, today we have cars with all kinds of bumpers, and there is no real reliable way to find out what level of protection the different car bumpers offer. We test 20 or 30 car models each year, but there is no other source of information.

The manufacturers are not providing reliable information on the performance levels of their bumpers. You heard manufacturers' representatives today saying, we have five mile per hour bumpers. But there are different kinds of five mile per hour bumpers. There are phase one and phase two. And there is no consumer information coming from the Federal agency, even though it promised such information.

Senator **Bryan**. Thank you, Mr. O'Neill.

Senator Danforth.

Senator **Danforth**. Mr. Chairman, I have no questions. I do have one comment, which grows out of a statement Mr. Reagan made about the fact that minivans are often treated in the same way as the family car. And you said that your daughter has a minivan and uses it for that purpose.

A very interesting point can be made, I think, having to do with customs duties. This is a controversy which has been going on very, very recently. The question is how minivans and sport utility vehicles are classified for the purpose of customs duties. It is a very important issue because the duty on a passenger car is 2.5 percent and the duty on a truck is 25 percent.

So the Japanese auto makers who of course manufacture many of these minivans and sport utility vehicles argue that for the purpose of customs duties these vehicles are passenger cars and not trucks. And here was a big controversy and the Customs Service said that they thought that they were trucks, and then the Secretary of Treasury took the matter on and it was compromised.

And so the latest rule is that if it is a four-door minivan or sport utility vehicle it is a passenger car with 2.5 percent duty; if it is a two-door it has 25 percent duty, it is a truck. So I would guess that a very large percentage of the minivans and sport utility vehicles that are going to be coming in beginning next year are going to have four doors and not two doors.

Now comes the NHTSA question, and of course the argument is made that these are not passenger cars, they are trucks, and they do not have to have the same safety standards as passenger cars. And that is the position of our government.

So the position of the United States government is, whatever Japan wants it gets; obviously these are passenger cars for the purpose of customs, obviously these are not passenger cars for the purpose of safety.

And any of us on this panel who lift an eyebrow about this apparent inconsistency are immediately charged with Japan-bashing.

So I simply raise the anomaly, and I think it is a total outrage if something is being imported to this country on the strong argument that this is a passenger car and it has to be a passenger car, look, it has four doors, and it is used to transport families, not goods, and then NHTSA says, why, that is not a passenger car at all, it is a truck.

Now, do any of you on the panel understand why this passenger car that arrives at our docks is no longer a passenger car when it gets in the family garage?

Mr. Reagan. I do not understand it at all. But from our perspective, if it is used as a passenger car it should meet passenger car standards. I think it is as simple as that.

Senator Danforth. If it walks like a passenger car. [Laughter.]

Mr. Snyder. Senator Danforth, I have one of those ducks in my garage and to me it does look like a duck. I mean, it is obviously treated like a private passenger vehicle, and our family and other families in America ought to have the same protection when they are in that vehicle as when they are in any four-door sedan.

Senator Danforth. Thank you very much.

Thank you, Mr. Chairman.

Senator Bryan. Senator Gorton?

Senator Gorton. I was very interested in Senator Danforth's non-question. [Laughter.]

One question on another, not quite so major subject, daytime running lights, which apparently are being required now in Canada and elsewhere. Do they make sense for the United States? Do you think that they would have a positive impact, and if so how much?

Mr. O'Neill. There is no question, Senator, that daytime running lights make sense; they make sense for the United States. There has been a requirement for daytime running lights in most of Scandinavia for some years now. It has had an impact on daytime two-vehicle crashes.

At the Institute we did research in the United States with some vehicle fleets a few years ago and showed that there was indeed a reduction in daytime two-vehicle collisions as a result of equipping vehicles with daytime running lights. As I recall, it was about a seven percent reduction.

And the Canadians have been convinced that the benefits of daytime running lights are sufficient to require them. We actually have an unfortunate situation in the United States that we have been trying to rectify at the Institute, because daytime running lights are not permitted, because of some odd quirks in lighting laws in some states' vehicle lighting laws.

When we were doing our research, we quickly ran afoul of this, even though we had dispensations from the attorneys general of the states where we were running our fleet program. We had to pull the vehicles out of some states because the highway patrol were insisting on issuing tickets.

We asked the National Highway Traffic Safety Administration some time ago to issue a rule that would preempt these state regulations, not requiring daytime running lights but simply permitting them, because if the agency does that it would cut through the complexities of many state laws that preclude the use of daytime running lights.

The agency refused to issue a permissive rule. So now we are working with the individual states to get the legislation changed to permit some Canadian cars to operate legally in the United States, because we will be in the anomalous situation, or potentially will be in the situation, where some Canadian cars will not be able to operate in some states of the U.S.

It makes no sense. Daytime running lights do make sense. Canada is ahead of us, Scandinavia is ahead of us. We should have daytime running lights in the United States.

Senator **Gorton**. Thank you, Mr. Chairman.

Senator **Bryan**. I would like to thank Senator Danforth and Senator Gorton for sharing their considerable experience and insight with us, and their incisive questions to the panel; and to each of the panels for being here and for each of you in attendance today.

This Subcommittee hearing is adjourned. The Subcommittee stands in recess.

[Whereupon, at 12:18 p.m., the Subcommittee was adjourned.]

ADDITIONAL ARTICLES, LETTERS, AND STATEMENTS

COMMENTS OF HONDA MOTOR CO., LTD.
REGARDING S. 673,
NHTSA AUTHORIZATION ACT OF 1989

April 17, 1989

We appreciate the opportunity to comment on S. 673, NHTSA Authorization Act of 1989. Our comments are limited to those issues which affect passenger cars since Honda does not sell trucks or multi-purpose passenger vehicles in the U.S. market.

Honda has a long-standing commitment to motor vehicle safety and we will continue our work in this area. While Honda supports the goals of S. 673, we strongly oppose the approach taken in the bill of legislatively mandating the rulemaking agenda. The basic NHTSA rulemaking process has proven adequate for handling complex motor vehicle safety issues and should not be circumvented.

Community Education Program (Sec. 102)

Honda supports the goals of a national education program on drunk driving prevention and on the use and effectiveness of air bag technology. Driver-side air bags are standard on Honda's 1989 Acura Legend. We plan to phase-in air bags on several other models over the next few years. We hope that the community education program called for in S. 673 will stress that air bags are a supplement to, and not a replacement for, seat belts. Used alone, air bags are not effective in a wide variety of accidents which occur, including rollovers, rear-end and angle collisions. They do offer an extra level of protection in head-on collisions when used in addition to seat belts.

Side Impact Protection (Sec. 201)

We are especially concerned over the requirement of S. 673 that a new side impact protection rule be implemented within twelve months after enactment. NHTSA is already in the process of developing a side impact rule. Given the complexity of this issue, Honda feels that the artificial twelve month deadline will likely result in an inadequate and ineffective rule. Three major technical problems remain unresolved and need further research:

1) No agreement has been reached on the design and function of a suitable side impact dummy to use in testing;

2) Concerns remain over the ability to achieve an acceptable level of repeatability in side impact measurement; and

3) Analyzing the effects on the side impact moving barrier is problematic.

While Honda understands the desire of Congress to have NHTSA implement a side impact rule as soon as possible, we feel that the importance of developing an effective rule supersedes this urgency.

Rear Seat Lap/Shoulder Belts (Sec. 305)

We believe that legislative action in this area is completely unnecessary since manufacturers are rapidly phasing-in rear seat lap/shoulder belts. Honda is already using three-point rear belts in all of its current models and retrofit kits are available for older models. Since NHTSA has a rulemaking in progress on this issue and since most manufacturers are voluntarily installing three-point rear belts, there is no need for a legislative requirement. Manufacturers should be allowed to introduce the belts on models as they are redesigned. By requiring their use in MY 1990, the bill provides no lead time for manufacturers.

Certification of Bumpers (Sec. 306)

Honda questions the usefulness and the cost-effectiveness of bumper ratings. First of all, impact speed does not relate reliably to repair costs. Further, consumers may be confused by the bumper ratings and mistakenly believe that the car with the stronger bumper is necessarily safer. Manufacturers would entail costs in testing and labelling their cars which will ultimately be paid for by the consumer. This is a damageability issue, not a safety issue.

Bumper Standard (Sec. 314)

Honda opposes the establishment of a 5 mph, Phase 2 (no damage to the bumper) standard. NHTSA's 1982 decision which set the bumper standard at 2 1/2 mph is based on the requirement of the Motor Vehicle Information and Cost Savings Act that each standard be set to obtain the greatest cost reduction for consumers. Clearly, this is not related to safety, but rather is a customer satisfaction issue. The 2 1/2 mph standard allows manufacturers the flexibility to offer a range of bumper and vehicle design options which best meets consumer demand.

Grant Program Concerning Seat Belt Use And Child Restraints (Sec. 315)

For the last four years, Honda has undertaken, jointly with NHTSA, nationwide programs designed to promote seat belt use among children. The voluntary seat belt education programs of Honda and other vehicle manufacturers and the enactment of seat belt laws in many states have resulted in a dramatic improvement in seat belt usage, and a consequent reduction in motor vehicle injuries and fatalities.

As a member of Traffic Safety Now, Honda is pleased that 32 states and the District of Columbia have enacted seat belt use laws. We support the enactment of these laws in every state. A grant program of the type suggested in S. 673 may motivate more states to pass them.

STATEMENT OF THE NATIONAL TRUCK EQUIPMENT ASSN.

The National Truck Equipment Association is opposed to several components of S.673, legislation to amend the National Traffic and Motor Vehicle Safety Act of 1966 and the Motor Vehicles Information and Cost Savings Act, as introduced.

Although the NTEA supports efforts to improve motor vehicle safety, the legislation as introduced, would impose unduly burdensome and infeasible requirements on the small businesses that complete trucks and vehicles used for commercial, vocational and specialty purposes.

The NTEA is the nation's only trade association representing truck body and equipment distributors and manufacturers, representing over 1,400 member companies in every state of the union. Most NTEA member companies are typical small businesses -- a closely held corporation or independent proprietorship, run by community-based management, operating a single facility, employing a small local workforce, and making sales on a local or regional basis. Our members distribute and manufacture all types of vehicles used for commercial, vocational and specialty purposes, including: tow, hoist, crane, dump, tank, and beverage trucks; utility, stake, platform, and farm work trucks; snow plows, fire apparatus, ambulances, and emergency vehicles.

While one objective of S.673, to improve the safety of light trucks, minivans and four wheel drive vehicles which are designed, built, marketed for and increasingly used as personal or family transportation, is laudable -- these provisions of the legislation are overinclusive, reaching all types of light trucks, including those built strictly for commercial applications.

Contrary to popular belief, the major motor vehicle manufacturers (e.g., Ford, GM, Chrysler, etc.) and the truck chassis manufacturers (e.g., Peterbilt, Mack, Kenworth, etc.) do not manufacture completed trucks, other than standard assembly line produced pickup trucks and vans. Instead, many trucks are built in two or more stages by two or more manufacturers. The major motor vehicle and truck chassis manufacturers actually produce a limited variety of bare truck chassis which consist of a cab, frame, power train, steering system, brakes, suspension and fuel/exhaust system. The body and related work equipment used to complete the bare chassis are manufactured and installed by NTEA members.

These vehicles, unlike the standard pickup trucks or vans built by the major motor vehicle manufacturers in a single stage assembly line process, are custom made to meet the exact specifications of the end user. As such, NTEA members complete literally hundreds of vehicle configurations from only a few standard chassis models.

This NHTSA reauthorization bill would impose unduly burdensome and largely infeasible regulatory requirements on the small businesses that complete these light truck chassis into commercial vehicles. Unlike major motor vehicle manufacturers, NTEA members produce a wide array of vehicle models every year. Any regulation that would require crash testing these vehicles could simply not be met by our members, they have neither the vast financial nor technical resources of a multinational corporation.

For example, an NTEA member may purchase a Ford E-350 chassis, a fairly standard light truck chassis used by many NTEA members. From the E-350 chassis, the NTEA member may produce different models of utility body trucks, towing trucks, platform body trucks, ambulances, or rescue vehicles. Thus, although Ford need only conduct a limited number of crash tests to certify its E-350 chassis and standard pickup trucks and vans as being in compliance with applicable Safety Standards, the NTEA member may need to conduct many different crash tests for each type of custom-built truck that it produces. The costs of conducting such crash testing for many models of trucks would far exceed the price of the vehicle in question.

Currently manufacturers of commercial vehicles, to remain in business and to comply with existing federal regulations, rely on the amorphous "due care" provision of the Safety Act. This provision allows a manufacturer not to conduct dynamic (crash) testing if he exercises "due care" with respect to the Safety Standard in question. Reliance on this due care provision creates tremendous risk and exposure for such manufacturers in light of today's product liability climate. Any such crash testing requirement places a substantial and uncertain burden on the manufacturers of small, commercial trucks, a burden that far transcends the obligation imposed on larger chassis manufacturers.

S.673, in an effort to improve the safety of standard pickup trucks, minivans and four wheel trucks built on an assembly line for the general public takes an assembly line approach to a problem requiring a custom built solution.

The NTEA suggests that before a solution for these multi-stage, commercial vehicles is proposed, it should be determined that a problem exists. The NTEA knows of no data that implies multi-stage produced commercial trucks need additional safety features. Prior to enacting legislation or regulations, it should be determined exactly how many light trucks and vans are completed in two or more stages for commercial application. This statistic is not currently collected by the government nor is it available from the major chassis manufacturers. Also, as yet to be determined is the accident rate or accident severity of these custom commercial vehicles which are generally driven by professionals and not designed for the expressed purpose of transporting passengers. No information of this sort is available to NHTSA, yet they are expected to regulate this industry blindly without any knowledge that a safety problem exists.

It would seem prudent to collect more information on this industry before trying to regulate it in the same manner as an industry producing millions of vehicles per year for the general public. Quite simply, a small business producing a wide variety of commercial light trucks for commercial purposes should not be regulated in exactly the same manner as a giant corporation building a relatively few models for general use.

The NTEA applauds the sponsor Senator Bryan and his cosponsors Senators Hollings, Danforth, Gorton, Gore, Kerry and McCain for recognizing that the current NHTSA vehicle classification system for safety standards does not adequately reflect today's vehicle marketplace. In S.673 there is a provision requiring NHTSA to review the system of classification for vehicles with a gross vehicle weight under ten thousand pounds to determine if such vehicles should be reclassified.

The NTEA firmly believes that such vehicles do need reclassification. There is no question that many vehicles in this weight range are increasingly being used for personal or family transportation. This situation did not exist to the current extent when the vehicle classification system was created.

Since the enactment of NHTSA's current classification system, distributors and manufacturers of trucks for commercial, vocational and specialty application have been faced with the difficulty of having to fit within a statutory and regulatory scheme that was crafted with the major automakers in mind. Scant, if any, attention has been given over the past twenty-plus years in the legislative or rulemaking process to the hundreds of small businesses who complete thousands of custom built trucks in small special order lots from standard truck and van chassis.

The NTEA has submitted comments to NHTSA on their proposed rulemaking for vehicle classification. We feel any new classification system will be incomplete unless it includes categories for two additional classes of vehicle; Multi-Stage Light Truck and Specialty Vocational Application Vehicle.

Defining a vehicle by its use has been the Agency's preferred method of differentiating between motor vehicle types. In its February 3, 1967 final rule, the Agency adopted three basic vehicle types which are still in use today: (1) a cargo carrying truck; (2) a person carrying passenger car; and (3) a combination of the passenger carrying use with a cargo carrying feature or the multipurpose passenger vehicle, MPV (with the other classes of vehicles -- buses, motorcycles, and trailers, added later.)

Although we believe that defining a vehicle by its application purpose or use would remain preferable and would reflect the current vehicle marketplace by differentiating between vehicles used for cargo-carrying purposes from those used for passenger transportation, we recognize that such a system is prone to subjective grouping and that the current system fails to classify vehicles properly. Therefore, we believe that use coupled with the manufacturing process currently found in the marketplace would provide a more objective method of classifying vehicles.

The NTEA offers the following vehicle classification for consideration with regard to NHTSA federal motor vehicle safety standards:

> Passenger vehicle -- Any motor vehicle with motive power designed primarily to carry ten (10) persons or less.
>
> Truck -- Any motor vehicle with motive power with a GVWR of more than 10,000 pounds, except a trailer or bus, designed primarily for the transportation of property or special purpose equipment.
>
> Multi-Stage Light Truck -- Any motor vehicle with motive power with a GVWR of 10,000 pounds or less, manufactured in two or more stages, which is installed with either (i) a cargo/property-carrying body or (ii) work-performing equipment, whether such vehicle is produced by altering a certified completed vehicle or by completing an incomplete vehicle.
>
> Light Truck -- Any motor vehicle with motive power with a GVWR of 10,000 pounds or less, other than a passenger vehicle or multi-stage light truck.
>
> Speciality Vocational Application Vehicle -- Any truck or multi-stage light truck built for a special vocational application, such as, but not limited to, ambulances, fire apparatus, emergency rescue vehicles, and emergency medical vehicles.

The combination of weight, use, and manufacturing process in a vehicle classification system would portray more accurately today's truck market and provide flexibility to meet future motor vehicle market trends.

This approach is designed to ensure that NHTSA differentiates in its regulations between those trucks that are used as passenger vehicles and those trucks that are used as cargo carrying vehicles. The potential for confusion between these two broad classes of vehicles is greatest in the 10,000 pounds, and under GVWR class because vehicles above this threshold clearly are not used to any significant extent as passenger vehicles (the largest pickups have a GVWR of 10,000 pounds, while the largest vans have a GVWR of approximately 9,000 pounds). Below 10,000 pounds GVWR, those vehicles produced in a single stage (i.e., vans and pickups) would be treated as light trucks. Those vehicles produced in two or more stages or altered, and which have cargo-carrying bodies or work-related equipment, would be treated as multi-stage light trucks. Since this latter category include trucks not designed for passenger use, or used to any significant extent as passenger vehicles, those vehicles could be exempted from Safety Standards intended to cover passenger-oriented vehicles.

The NTEA would also like to comment on Title II - Miscellaneous Provisions, Standards Compliance, section 301 of S. 673. The NTEA Board of Trustees has consistently advocated the enactment of reasonable and practicable safety standards but even more importantly, the effective and complete enforcement of existing standards.

Section 301 of S. 673 takes an important step towards the better enforcement of federal motor vehicle safety standards. We urge the Consumer Subcommittee to enact this section and support the NHTSA in its efforts to establish a meaningful program to ensure compliance with existing safety standards.

Finally, the NTEA is concerned with the provisions in this bill concerning crashworthiness ratings. This may be useful information for the general consumer in much the same way as EPA gas mileage ratings. It would seem impossible, however, to create any realistic way of devising crashworthiness ratings for all of the various vehicle configurations produced by NTEA members.

The consumer of a multi-stage produced commercial vehicle is not the same as the consumer of a passenger car or personal use MPV. The consumer of a multi-stage produced commercial light truck is a well informed businessman. They are purchasing a custom built vehicle because they already know that nothing produced on the assembly line will meet their exacting needs. A purchase of this type is a business decision and is made taking into account all pertinent information. Crashworthiness ratings would not constitute necessary or practical information to such a consumer even in the event that compilation of such data would be possible.

The NTEA thanks the Consumer Subcommittee of the Senate Commerce, Science and Transportation Committee for this opportunity to express our views on S. 673. We trust that we can work with you to fashion NHTSA reauthorization legislation that reflects some of our concerns while providing for the safety of motor vehicle occupants. We would be happy to answer any questions or provide any information possible to assist you and your staff in this task.

4601P/9060

STATEMENT OF SARA F. CLARY, ALLIANCE OF AMERICAN INSURERS

Mr. Chairman, on behalf of the Alliance and its member companies, we are pleased to submit testimony in support of the Chairman's bill S. 673. The Alliance of American Insurers is a national trade association representing 165 property and casualty insurance companies.

The Alliance commends the Chairman's efforts, and those of his cosponsors, to make our highways safer for all who travel upon them. This bill reauthorizes the National Highway Traffic Safety Administration (NHTSA) and provides a safety agenda which, if fully implemented, would significantly reduce the nation's toll in damage, injury, and death on the highways.

Bumper Standards

The Alliance has long supported the reinstatement of the five mile per hour bumper standard first created in 1982. This bill would require that standard to apply to all cars manufactured after September 1, 1990. However, the bill does not preclude the Secretary of Transportation from requiring a standard higher than five miles per hour.

The legislation further requires the Secretary to promulgate regulations which would establish passenger motor vehicle bumper standard labeling requirements. The label would contain a disclosure of the impact speed that meets the applicable damage criteria. The Alliance wholeheartedly endorses this approach as a way to provide the maximum information to the consumer.

The simple reinstatement of the five mile per hour bumper standard would save U.S. drivers tens of millions of dollars a year in avoidable repair costs, a result we feel all people should applaud.

Side Impact Standards

The bill contains provisions for the establishment of performance criteria for improved side impact protection for occupants of passenger vehicles. This rule would be issued by the Secretary within twelve months after legislation is enacted. An additional rule for multipurpose vehicles would be issued within two years. The bill also provides for a study by the National Academy of Sciences to establish an objectively based system of comparative tests.

The Alliance concurs in the development of performance criteria for side impact protection and urges that it be implemented as quickly as possible. This is another example of consumer information that could be included in manufacturer labeling. By providing auto purchasers with a baseline of comparison, they can make more reasoned decisions and affect the price of their insurance.

Multipurpose Passenger Vehicle Safety Standards

The bill requires the Secretary to revise various Federal Motor Vehicle Safety Standards so that they will apply to multipurpose passenger vehicles within one year of date of enactment. These provisions include: minimum roof crush resistance standards, single high-mounted stoplamps, and outboard front seat passive restraint occupant protection systems.

As multipurpose passenger vehicless have been used more and more for recreational use and passenger transportation, accidents, injuries, and deaths have risen dramatically. There would seem to be no argument that the minimal standards applied to passenger automobiles should also apply to multipurpose vehicles.

These are certainly not all of the provisions of S. 673 that we would endorse, but from our perspective are the ones that will most decrease damage, injury, and death. The entire bill is a commendable, bipartisan effort to develop rational policies for the nation's highways.

Safety and Insurance

Everyone, most especially the insurance industry, is aware of consumers' desires to lower insurance premiums. We are seeing actions in a number of states attempting to reform automobile insurance. The industry is keenly interested in working together with all parties to solve this problem. At a recent conference, nearly all participants agreed that it is not excess profits which make insurance expensive, it is the underlying costs.

Costs must be dealt with on a number of fronts. S.673 is a good step in toward controlling costs in one major area -- damage, injury, and death on the highway. The Alliance has met with consumer groups, legislators, and other insurers to analyze the underlying costs and how to reduce them. It is impossible to quantify the cost savings to insureds by implementing S. 673. We can state, however, that significant savings would accrue from this type of program, and that some rapidly rising costs would be contained.

Other areas need to be addressed as well including rising medical costs and inadequate no-fault statutes which we will discuss later. We can also state that these measures will have a positive impact on losses, and consumers will benefit both in lives saved and reduced insurance costs.

Other Cost Factors

Of course, implementation of these requirements alone will not solve the entire problem of rising automobile insurance premiums. The Alliance is aggressively seeking a full range of measures to curb insurance costs. Many of these solutions will be sought at the state and local level, but safety is certainly a federal issue.

Briefly, we will enumerate some of the other answers we are seeking:

1. Establishing effective no-fault laws with strong verbal thresholds and reasonable and appropriate benefit packages.

2. Correcting uninsured motorist laws to eliminate stacking and to establish cost-efficient "triggers" on underinsured motorist coverages.

3. Promoting anti-theft and fraud programs, including: insurance department fraud bureaus, cash award programs for information on auto thefts, funding assistance for law enforcement agencies' auto theft and fraud divisions, enactment of model legislation allowing more effective investigation and prosecution of theft and fraud.

4. Eliminating duplicate payment of benefits with legislation repealing or revising collateral source rules and by coordinating benefit payments among various insurance contracts.

5. Exploring medical care management programs aimed at combatting the ever-increasing medical costs while continuing quality care. Statutory medical fee schedules currently used in well-administered workers compensation programs may be beneficial when applied to no-fault laws.

6. Creating and supporting consumer information programs, including: a new car "window sticker" program that would help the consumer learn about the damageability, repairability, and theft frequency of the new car

being considered for purchase and how that affects insurance costs (some of this already contained in S. 673); policyholder communications about ways to control insurance costs; consumer education about legal costs and transaction costs paid for by insurance; and funding of community insurance information centers.

7. Ensuring that insurance departments are properly funded and serve as the real consumer advocates within the states. Insurance departments should create consumer divisions that would aid consumers in understanding insurance products, and in choosing an appropriate and reliable insurance company.

8. Reducing vehicle repair costs by implementation of the bumper standard, the modification of statutes to allow the use of competitive replacement parts, by implementing the provisions of the National Association of Insurance Commissioners' Model Unfair Claims Settlement Practices Acts and Regulations, and by working with the Society of Automobile Engineers and the Insurance Institute for Highway Safety.

9. Promoting vehicle safety by enactment of S. 673.

Mr. Chairman, we obviously share your concerns about vehicle safety, and we also see it in the context of overall insurance problems. From the federal perspective, implemention of S.673 would make a drastic improvement over the current system. Beyond that, we will work with state legislators, consumer organizations, and the rest of the insurance industry to make our nation's highways safer and less expensive to drive upon.

5100 FORBES BLVD., LANHAM, MD 20706, 301/459-9110, TELEX: 4990739-APAAI (VIA ITT)

APA
AUTOMOTIVE
PARTS &
ACCESSORIES
ASSOCIATION

April 10, 1989

The Honorable Richard Bryan
Chairman, Subcommittee on Consumer
227 Senate Hart Office Building
United States Senate
Washington, D.C. 20510

Dear Senator Bryan:

The Automotive Parts and Accessories Association (APAA) is pleased to present the following comments on the National Highway Traffic Safety Administration Authorization Act of 1989 (S 673) and asks that they be included in the hearing record for April 5, 1989 on the bill.

Mr. Chairman, APAA strongly supports the inclusion of Section 309 which authorizes an independent study of the effectiveness of Periodic Motor Vehicle Inspection (PMVI) as part of S 673.

In 1986, automobile crashes caused over 46,000 deaths and 2.4 million injuries costing Americans a whopping $74.2 billion, according to the National Highway Traffic Safety Administration (NHTSA). While highway fatalities have dropped to a record low, continuing to improve this country's traffic safety record should remain a major priority for Federal, state and local governments.

APAA believes that an important and most often ignored ingredient in accident rates is the improper maintenance of vehicles. The Commonwealth of Virginia, which currently requires safety inspection, reports that 24.6 percent of vehicles inspected had defective brakes, 26 percent had defective headlights, and 17 percent were found to have defective tires. It should be noted that at least in Virginia these defects were discovered.

The fact that there is a large number of vehicles on the road with safety components not in working order is alarming. The Car Care Council estimates that accidents due to neglect cost Americans over $2 billion annually including $650 million in wages lost, $195 million in medical expenses, $750 million in vehicle property damage and $500 million in insurance costs.

Congress saw the benefit of proper maintenance in the 1960's when the Highway Safety Act of 1966 directed the Secretary of Transportation to issue standards for state highway safety programs and to provide grants-in-aid to assist in implementation of the standards. In June, 1967, the Secretary issued minimum objectives for that portion of a state program concerning motor vehicle inspection. Unfortunately, the highway safety program intended by the law never was realized. The DOT standards issued only minimal guidelines and failed to provide sufficient direction to assist states in developing comprehensive vehicle inspection programs.

What resulted from NHTSA's lack of resolve was a "free for all" as states developed differing inspection systems which, while failing to provide many real safety benefits, often caused car owners to wait in long lines and jump through administrative hoops in order to obtain an inspection sticker. So it came as no surprise in 1976 when, under pressure from constituents, Congress lifted the threat of withholding federal highway funds from states for failure to establish a vehicle inspection program and pounded the final nail into PMVI's coffin.

However, APAA believes that the time has come to take another look at the potential of PMVI for saving lives and property. New advanced vehicle designs and diagnostic technology can make safety inspection both more effective and more efficient. Efficiency would be further enhanced by combining PMVI with emissions inspection programs which an increasing number of jurisdictions might adopt to avoid Federal sanctions required by the Clean Air Act. Utilizing the same infrastructure, and in some cases the same equipment, for both PMVI and I/M would mean one convenient inspection stop for the car owner and only a small additional cost to the State of adding a safety inspection to an already required emissions inspection program.

Unfortunately, efforts to improve and expand PMVI have not occurred largely due to the cloud of failure which has loomed over past and present programs for two decades. APAA believes the only method for revitalizing the program is to strip away the past and take a fresh look. Such an approach was fashioned by this Subcommittee in last year's NHTSA authorization bill which included the same study provision which is contemplated by S 673.

Although a study provision was included in the Conference Report on the Continuing Resolution for fiscal year 1988, there remain significant questions as to whether NHTSA can objectively perform this task. These doubts were raised by Senator Hollings in a letter to Ms. Diane Steed, NHTSA Administrator: "Questions have been raised about the resultant potential for at least the appearance of a conflict of interest. First, NHTSA has repeatedly testified in Congress about the ineffectiveness of such a study. Second, NHTSA's regulatory responsibility related to the states' inspection programs (23 CFR 1204.4) should be a factor considered in the study, and will be difficult for NHTSA to review objectively."

APAA echoes Senator Hollings concerns and strongly urges this Subcommittee to scrutinize closely NHTSA's study when it is finally released. We further ask that this Subcommittee compare the study's results to the testimony and evidence which were presented to the NHTSA during preparation of the study. NHTSA further should be directed to explain any inconsistencies so that the record on PMVI remains clear.

In any event, NHTSA's past record on PMVI strongly suggests the advisability of having a study performed by an independent and objective third party. Only such an unbiased evaluation, which considers not only the programs past but also its potential, will provide a realistic and credible picture from which the states and the Federal government can make well informed decisions on public policy regarding PMVI.

Mr. Chairman, APAA finds it difficult to understand why this Nation devotes an enormous amount of time and money to produce a comprehensive set of new vehicle safety standards, but then fails to recognize the importance of assuring that vehicles are meeting these standards as they build up miles on the road. The growing number of vehicles on the road and the mounting evidence that these vehicles' major safety features are not being adequately maintained, demands that this country revisit the PMVI issue.

Finally, we highlight the growing interest in safety inspection as evidenced by the formation of the Coalition for Safer Cleaner Vehicles (CSCV). CSCV is the first joint effort of automotive aftermarket groups and consumer organizations to increase public and government support for safety inspection. We support the work of the Coalition and believe that with this Subcommittee's efforts, there are enormous opportunities for increasing safety on our Nation's highways.

Thank you for your support for this effort. We look forward to working with you on this important legislation.

Sincerely,

Julian C. Morris
President

STATEMENT OF JOHN NERLINGER, PRESIDENT, AUTOMOTIVE SERVICE INDUSTRY ASSN.

Mr. Chairman, my name is John Nerlinger, President of the Automotive Service Industry Association. I appreciate this opportunity to comment on S. 673 to amend the National Traffic and Motor Vehicle Safety Act of 1966 and the Motor Vehicle Information Cost and Savings Act.

The Automotive Service Industry Association (ASIA) is the automotive world's largest and most comprehensive organization. Its membership encompasses more than 8,500 independent automotive wholesalers, warehouse distributors, heavy-duty parts and equipment distributors, automotive electric service distributors, manufacturers' representatives, manufacturers and remanufacturers of automotive parts, tools, equipment, chemicals, paint, refinishing materials, supplies and accessories. Members of the association are primarily small businesses engaged in manufacturing and distributing the replacement parts and accessories required to service and repair the over 182 million passenger cars and trucks in operation in the United States today.

The parts and components necessary for the repair and maintenance of these millions of motor vehicles are primarily supplied by independent manufacturers and distributors, which are collectively known as the independent aftermarket industry. This parts and service industry, comprised of over 400,000 independent businesses, occupies a vital role in maintaining the nation's vehicles and in protecting the environment.

ASIA's comments are directed specifically to Section 309 of the Bill dealing with State Motor Vehicle Safety Inspection (PMVI) programs.

Section 309 of S. 673 would mandate a study by the National Academy of Sciences on the effectiveness of State motor vehicle safety inspection programs. If Congress will, in fact, act upon the results of that study, we urge it go forward. Study after study over the years, including a fairly recent one by Indiana University, has indicated the value of Periodic Motor Vehicle Inspection. ASIA was very active in passage of the Motor Vehicle Safety Act of 1966 and in working with Congress and Federal agencies in developing the eighteen Highway Safety Programs Standards and the mandatory requirements for states to implement PMVI, with financial sanctions available against states for noncompliance. Unfortunately, DOT never withheld any money and the program never reached its full potential.

In 1972, ASIA strongly supported Congressional action in promulgation of the Motor Vehicle Information Cost and Savings Act providing for demonstration projects designed, established and operated to conduct periodic safety and emissions inspections and to provide specific technical diagnosis of each vehicle inspected, in order to facilitate correction of any component failing inspection. We agree with the Agency's analysis that the demonstration projects undertaken in the program showed diagnostic motor vehicle inspections benefited consumers by providing them information on the condition of their vehicles, which if used properly, could result in greater safety, lower pollution, improved gas mileage, and lower overall repair and maintenance costs.

Additionally, ASIA worked with the Agency on a program under the Act for development of low cost diagnostic inspection equipment through the same demonstration program. Again, sadly, this program never reached its full potential.

Consumers in a back-lash to regulation have made Periodic Motor Vehicle Inspection a political issue rather than a safety issue. From a high of thirty-two states and the District of Columbia having PMVI, we are now down to twenty-one states and the District of Columbia having PMVI programs. There are, we believe, a number of reasons. First of all, the Department of Transportation (DOT) had authority under the Act of 1966 to withhold Federal Highway monies from those states not adopting a PMVI program. No highway money was ever withheld from any state that failed to adopt the program. This is in stark contrast to the Environmental Protection Agency (EPA) that withheld sewer and water grant money from those states that did not implement I&M (Emissions Inspection and Maintenance) under the Title I provisions of the 1977 revisions to the Clean Air Act.

Because of the lack of enforcement action by DOT and the actions of Congress in 1976 to eliminate DOT authority to apply those sanctions, numerous states took the politically easy way out and eliminated their PMVI programs. We believe the study mandated by S. 673 should carefully look into the eleven states which repealed their PMVI laws from 1976 to 1982, to determine exactly the cause for those repeals. Was it because statistical evidence showed they had no impact on highway safety? We do not believe so. There is every likelihood that those programs were dropped solely because of political considerations.

Last year the National Highway Traffic Highway Administration in Docket 88-09; Notice 1 held public hearings at the direction of the Continuing

Resolution for fiscal year 1988, which required the Agency to conduct another comprehensive evaluation of PMVI. ASIA testified at that hearing and feels as strongly as it did then, that PMVI is essential to highway safety. We would urge any National Academy of Science's study review all the information already available at the National Highway Traffic Safety Administration on the effectiveness of PMVI programs.

We note with interest that Subsection (c) requires the Academy to also look at the combining of Safety and Emissions Inspection Programs. A number of states have already done what is being suggested by the legislation, that is, mandate emissions inspections combined in the same facilities with PMVI. We applaud this as cost effective and note emphatically that emissions inspection is the only way to maintain clean air mandated under the Act for vehicles-in-use. An example of this program working well is in the state of Virginia, where PMVI is required yearly and in the non-attainment area of northern Virginia where emissions inspection is required prior to getting tag renewal. Both tests are being done in independent repair facilities. ASIA firmly believes that emissions inspections should not be limited only to non-attainment areas but should be mandatory nationwide to be environmentally effective, as should PMVI inspections. Spot or random inspection programs, we believe, do not serve as a viable alternative for at least a minimum yearly PMVI and I&M inspection.

Subsection (c) also addresses itself to whether or not states should use private organizations to conduct safety inspections. This is a question ASIA has looked at for years. Our opinion is that to have broad enough testing capabilities to counter long lines and consumer complaints, the testing facilities should be through state licensed independent industry outlets for consumer convenience. Further diagnostic equipment and program development needs to be done that will allow for as many components to be tested as possible during the testing. The testing must be done in a reasonable amount of time, at a readily convenient number of facilities. This is the most rational way to approach nationwide implementation.

In summary, ASIA strongly supports the provisions in S. 673 mandating the study and would urge Congress to act on what we believe will be the conclusions of that study. That is, that nationwide mandatory PMVI and I&M programs conducted in independent facilities will improve in-use vehicle safety and lower emissions. We believe those programs should have federal minimum standards which states must meet or face Federal sanctions. We would also urge that the Academy be requested to look at research by both NHTSA and EPA on the further development of low cost effective diagnostic equipment to perform these tests and wherever possible federal assistance be made available for the development of such equipment.

To repeat what we've been saying regarding PMVI and I&M programs since before the 1966 Act was adopted -- they are the two most basic programs necessary to achieve safer and cleaner in-use vehicles.

ASIA appreciates this opportunity to express its views on this S. 673 and would be happy to answer any questions you might have.

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